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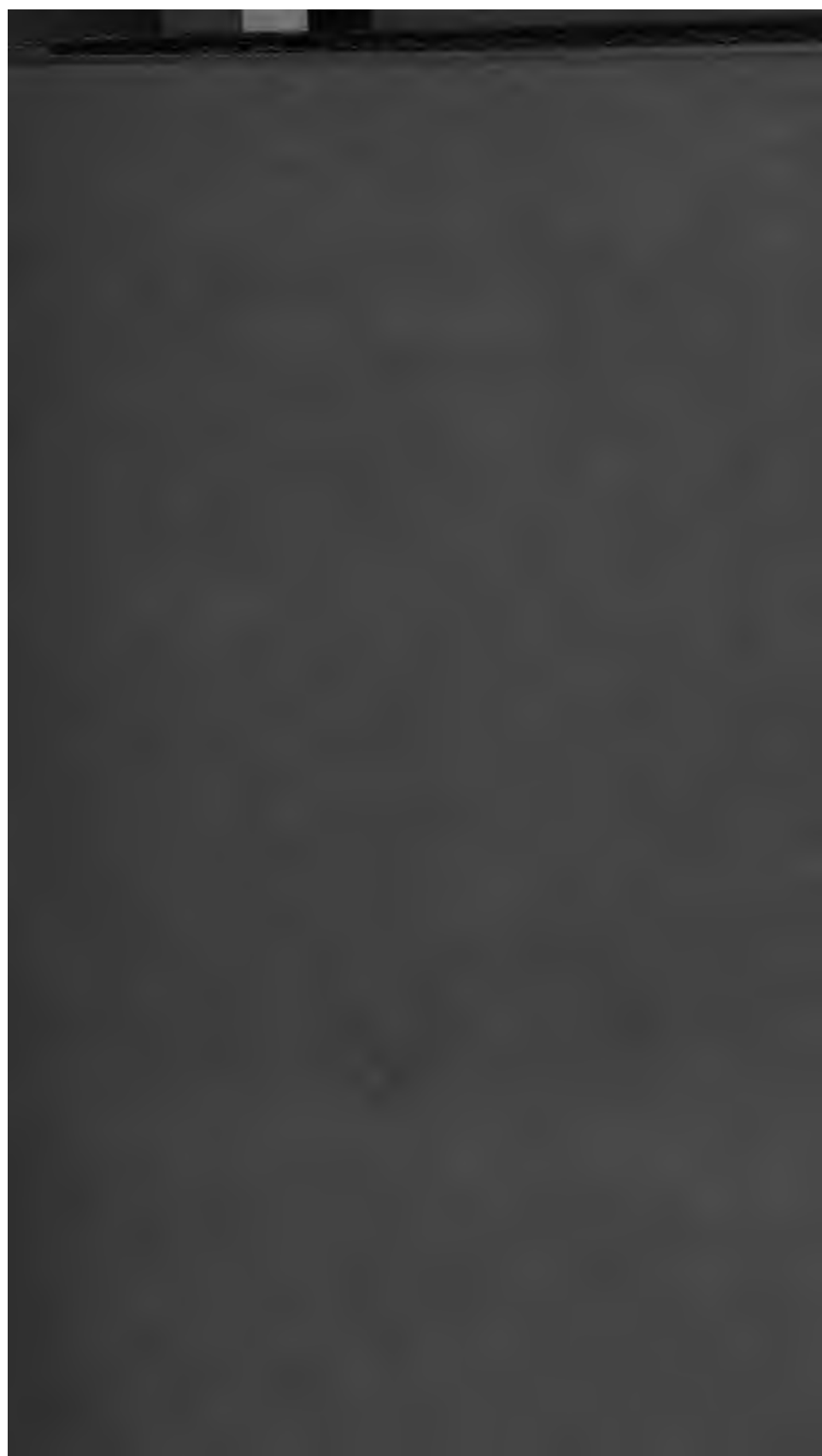
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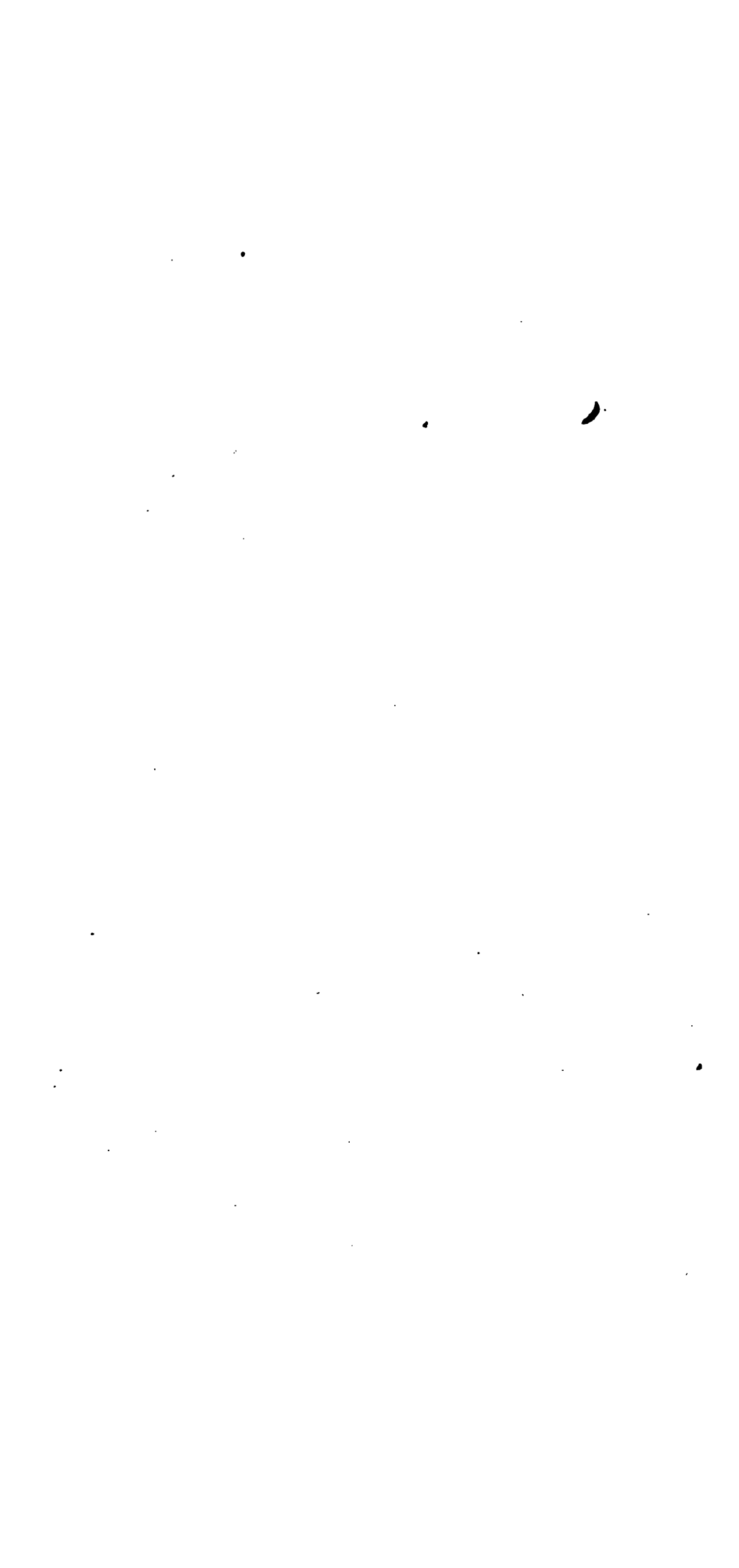
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THE
BRITISH FLORA;
OR,
GENERA AND SPECIES
OF
BRITISH PLANTS;

ARRANGED AFTER THE
Reformed Sexual System;
AND ILLUSTRATED BY
NUMEROUS TABLES, AND DISSECTIONS.

BY
ROBERT JOHN THORNTON, M. D.
PROFESSOR OF BOTANY AT GUY'S HOSPITAL, MEMBER OF THE UNIVERSITY
OF CAMBRIDGE, AND OF THE ROYAL LONDON COLLEGE OF PHYSICIANS,
&c. &c. &c.

VOL. I.

London:

Printed for the Author by J. WHITING, Finsbury Place, as Printer for the Royal Botanical Lottery.

1812.



TO
JAMES EDWARD SMITH, M.D. F.R.S.

**PRESIDENT OF THE LINNEAN SOCIETY;
LECTURER ON BOTANY AT THE ROYAL INSTITUTION;
MEMBER OF THE ACADEMIES OF TURIN, UPSAL, STOCKHOLM,
LUND, LISBON, PHILADELPHIA, THE IMPERIAL
ACADEMY, NATURÆ CURIOSORUM, &c.**

London, October 1, 1811.

SIR,

KNOWING how much your delicate mind rejects praise, I shall in this **DEDICATION** forbear expressing all the sentiments of respect and esteem entertained by me towards one so truly estimable; and indeed it would be a very difficult task for any person to find words sufficiently expressive to give even but a faint likeness of the original, to depict the numerous social and domestic virtues which adorn your character as a man, your liberality as a gentleman, your learning as a scholar, profound judgment, accurate observation, unwearied industry, and most unassuming manners; your perfect knowledge in all the departments of natural history, the numerous discoveries in science you have made, the splendid and useful works you have published,

your indefatigable and unabating zeal, the condescension with which you open the invaluable stores of the Linnæan Collection, your instructive and charming manner of lecturing ; in short, a thousand perfections would arise in detail to the biographer, and truly proud am I to be able to boast that *such a man* was not only my instructor in botany, but my private friend, and benefactor (having been by him appointed as his successor in the Botanical Chair at *Guy's Hospital*); and in the sincere and ardent prayer that Heaven may long protect such an ornament to society, *so good and so great a man*, I have the honour now to conclude the real sentiments of my heart, which, upon such an occasion for taking up my pen, I could not withstand publicly expressing, and have the honour to be,

Dear Sir,

With equal respect, admiration, and regard,

Your obliged, devoted Friend,

ROBERT JOHN THORNTON.

P R E F A C E.

I SUPPOSE the reader of this work to be already initiated into the fundamental principles of the beautiful science of Botany, as laid down by us in our "*Elements of Botany*;" and having so far clambered up the hill, which will conduct him to a knowledge of Plants, a delightful view is now presented him, namely, all the *Genera and Species of Plants*, to be found in *Great Britain*.

BOTANY, as a practical science, is of very considerable extent, and demands both *bodily* and *mental* exertion.

It may be objected, as it undoubtedly will, that such a *knowledge* is undeserving the *attention* it requires. I grant that, merely to acquire the names, without, indeed, the attributes, of plants, is an employment rather of a trifling kind; but Botany, considered as a *science*, enlarges greatly our conceptions of the CREATOR, and improves our UNDERSTANDINGS. Are we to be *told*, and *believe*, that the wonderful works of GOD are undeserving the attention of man? That what HE hath contrived with such consummate skill is to be passed over with inattention and disregard? That ignorance is the fit condition of man? That we are to trample over the plants of our country without exercising any curiosity to examine into their nature and fabrication?—I will not go so far as to call this language direct im-

piety against the CREATOR, who has kindly placed us in this world, and presented us with suitable objects for our admiration, contemplation, and benefit; but I will be bold to assert, that such pleaders for *ignorance* are generally the misemployers of their own time, or of so low a cast of mind, as always to envy and speak against those acquisitions they do not themselves possess.

“That existence,” says Linnæus, “is surely *contemptible*, which regards only the gratification of instinctive wants, and the preservation of a body made to perish. Superior to the brute beast, *Man* is formed to contemplate the *great Book of Nature*, and behold with wonder and adoration the stupendous works of HIM, who created both *these* and *us*.”

There are, thanks be to God! on the other hand, a multitude of *superior spirits*; for only look into your own breast, and you will find there are persons born, not to consume the fruits of the earth (“*fruges consumere nati*”) and nothing further, but who delight in every laudable acquisition. These are the true prototypes of the infinitely wise CREATOR. Instead of possessing a few confined ideas, their minds range over the varied forms of creative power, and stored with many branches of genuine science, they appear truly beings, only a little lower than the Angels; and can look up as *men* with proper gratitude to God, whose goodness, power, and excellence, they have both seen and felt.

Nor do the advantages of the study of BOTANY rest only in exalting our conceptions of the DEITY. “Whoever,” says an ingenious writer, “has turned his mind so as to comprehend

the extensive system of the vegetable kingdom, in the manner as at present taught, and has traced this system through its various connexions and relations, either descending from generals to particulars, or ascending by a gradual progress from individuals to classes, till it embraces the whole vegetable world, will, by the mere exercise of the faculties employed for this purpose, acquire an habit of arrangement, a perception of order, of distinction, and subordination, which it is not perhaps in the nature of any other study so effectually to bestow. In this view the examination of the vegetable kingdom seems peculiarly proper for *youth*; to whose unperturbed minds the study of natural objects is always an interesting occupation, and who will not only find in this employment an innocent and an healthful amusement, but will familiarise themselves to that regulated train of ideas, that perception of relation between parts and the whole, which is of use not only in every other department of natural knowledge, but in all the concerns of life,"*

I have thought it right to make the student's first step in *Practical Botany*, the knowledge of those plants, which are the produce of our own climate; for it seemed to me highly reasonable to become *first* acquainted with *Indigenous Plants* before we cultivate *Exotic Botany*.

"A knowledge of *the plants of our own country*," says the learned, and illustrious, Dr. *Smith*, in his *English Botany*, "is in many respects even preferable to that of *exotics*, as it can be more readily and completely attained, and is on several accounts more directly useful.

* Roscoe, of Liverpool.

“ There is no occasion to mention the indispensable necessity of such knowledge to those who are occupied with the rural economy of the country, to be well acquainted with its native vegetables; or to such who cultivate the healing art.

“ Nor are the humble productions of our fields and woods deficient in real beauty, elegance, and singularity of structure; in which respect some of them even vie with the more favourite flowers from abroad.

“ The study of *Indigenous Plants* as an amusement, has this eminent advantage over *Exotic Botany*,—that these are always found in their natural state of growth, and that they double the pleasure of every walk and journey, and call forth to *healthy exercise* the *bodily* as well as *mental powers*; whilst the person, who has not a relish for such pursuit, must submit to take a walk in the country, without an object, and usually without enjoyment, merely for the purpose of exercise, and that alone; or toil in some dangerous sports; or sacrifice health to some sedentary employment.

“ Plants appear to have been profusely scattered over the earth, as the stars in the firmament, to invite man, by the attractions of curiosity and pleasure, to their contemplation. But the stars of heaven are placed at a great distance from us. To possess *Astronomy* requires a previous acquaintance with the *mathematics*, instruments, a long artificial ladder, to bring them within our scope. *Plants*, on the contrary, grow under our very feet, and seem to *invite* our hands; and if the minuteness of their essential parts sometimes evade our sight, the instruments for their examination are comparatively trifling—a needle and a magnifying-

glass, or, at most, a pocket microscope, is all the apparatus required."

What a happy change would be at once effected in our *Seminaries*, were this science universally taught, whereby each excursion into the fields, to *boys*, and even *females*, would be then attended with instruction and delight, the limbs rendered more agile, the constitution more ensured, where learning would be a recreation, emulation kindled, and the mind, comprehending a *palpable* science, would be thereby fitted for *higher flights*, in which the memory would be strengthened, the judgment increased, and the active powers of the understanding sharpened!

I trust and hope that the time is not far distant, when *such knowledge* will become *universal*, and it will be thought as disreputable, not to know *scientifically* the plants of *our* country, which every day and hour present themselves to our view, as not to be able, when called upon, to construe a crabbed passage of a Greek or Roman poet, translate a French author, or even dance.

IT is certainly not a small satisfaction for me to find, that although the learned and venerable Professor MARTYN has long *openly disapproved* of the *changes* made in the Sexual System by the several Reformers, yet he writes to me,—

Extract of a Letter to Dr. Thornton from Professor Martyn.

"I by no means *disapprove* of *your new* attempt to render the Sexual System, by the manner in which you have done it, an *easier medium* of attaining a *knowledge of Plants*; and have been long convinced in my own mind, that we strive in vain to unite

a *natural* with an *artificial arrangement*. Upon *your plan*, I see no *impropriety* in bringing the ORCHIDEÆ into the *Second Class*; nor can I even *object* to your *altering*, as you have done, the separate classes of LINNÆUS, ICOSANDRIA and POLYANDRIA. Your *method* is ably considered throughout; for along with *you* I hold our great Master's System as *sacred*; and can never approve of those *greater alterations*" (he might have said *mutilations*) "which some of his pupils have made, so differently is to be estimated the conduct of persons engaged in the same object."

The Rev. Dr. MILNE, the learned author of "*A Botanical Dictionary*," writes to me,—

Extract of a Letter to Dr. Thornton from the Rev. Dr. Colin Milne.

"Your *Reformed Scheme* of the *Linnæan System* has my *entire approbation*. It possesses all the admirable and elegant simplicity of RIVINUS, which has always been a great favourite with me, from the steady adherence of the author to the principles of his method, and is eminently adapted for *practice*. Your ideas respecting the *Sexual System* are truly excellent."

Doctor SHAW, of the British Museum, a gentleman not less eminent as a botanist than a naturalist, declares, "that he believes, had LINNÆUS been alive, the *Reformed Sexual System* would be that which he himself would have instantly adopted." Similar are the opinions also of several other *distinguished botanists*; yet I assure the reader, I mention these high testimonies not with arrogance, but with extreme diffidence.

Without further apology I shall enter upon the object of this work.

Class 1.

MONANDRIA.

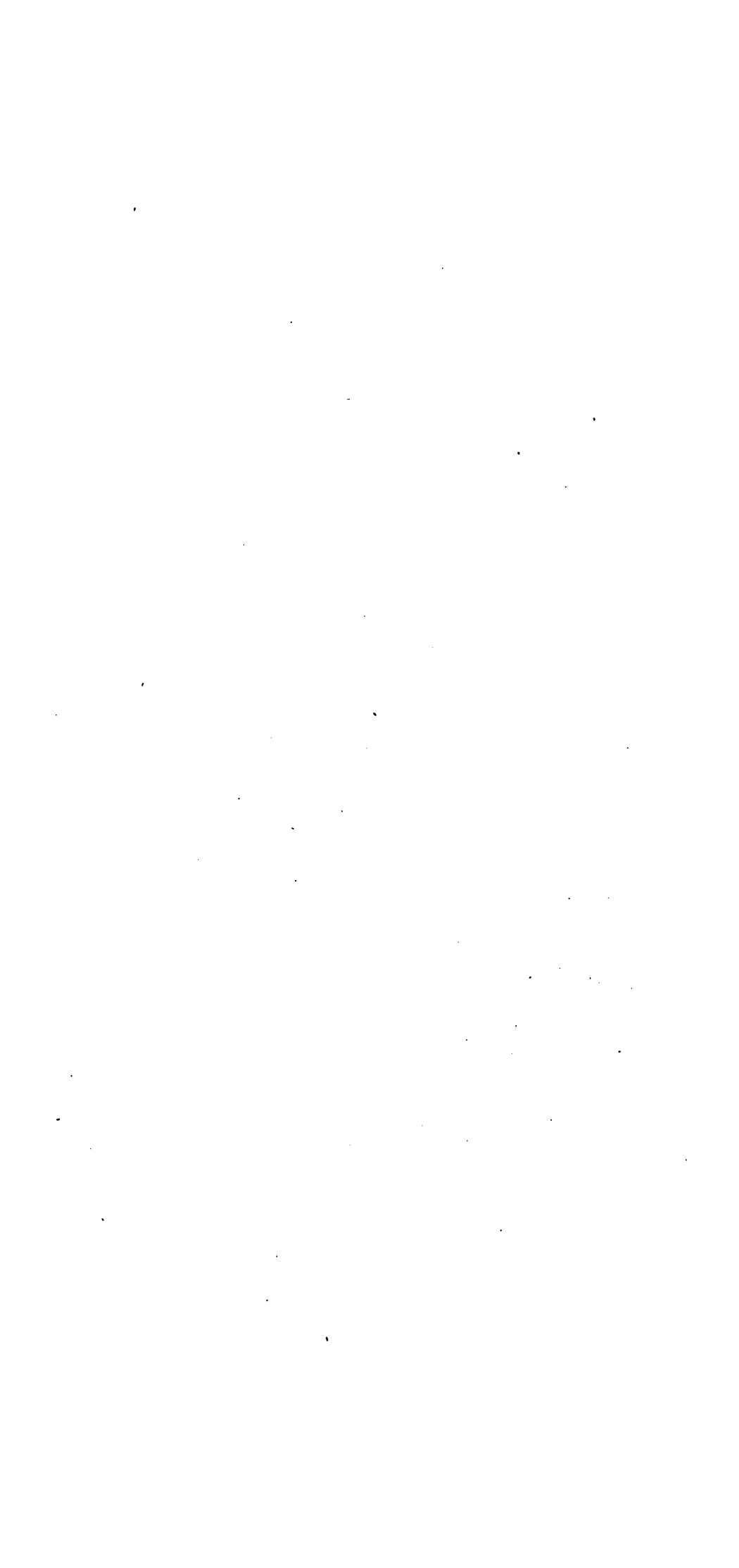
One Stamen



CLASS I.

MONANDRIA.

ONE STAMEN.



OF THE TABLE.

How to use the Table.

THE searcher after any unknown plant may be said to be upon a BOTANICAL JOURNEY, and the flower he holds in his hand is his *directory*.

Having fixed his *starting place*, THE CLASS, he has *one of two roads* to choose, and understanding the discriminations given (like directions upon sign-posts), and comparing these with the flower in his hand, he is agreeably conveyed from *stage to stage* until he arrives at the *last comparison*, which conducts him instantly to the family, or generic, name of the plant he was in pursuit of.

To those of *riper years*, such BOTANICAL EXCURSIONS resemble the mode of acquiring the MATHEMATICS, or the procedure of LOGIC: we advance from *known propositions* to *unknown*, and thus acting analytically, step by step, we ultimately arrive at "*quod era. probandum.*"

This method of discovering a plant by comparisons, and these derived from a few particulars, and those of the most striking kind, is an *agreeable* and *noble exercise* of the *understanding*.

To those of an *under-age*, such studies might be called an amusing PUZZLE; and rewards for discovery being made, proportioned to the lengths of the journeys taken; might soon be made to supersede the GAME OF GOOSE, and those OTHER GAMES, which only inflame the passions, without enlarging the understanding.

Explanation of the Terms employed in the First Table.

Discriminating Characters,—Are derived from easy comparisons, by which we collect under one head flowers agreeing in one single circumstance; and in this way we go on, dividing and subdividing until we find the last difference, thereby separating that individual from all the rest.

Genus.—A common appellation to several species, all agreeing in the most material parts of their fructification.

Exceptional Species.—Where particular genera arranged under a different class possess some one or more species deviating from the classical character, under which such genus is placed.

Class.—The largest division; all the plants included under one common head, from agreement in one particular; namely the number of stamina. Example, Class I. Monandria; all plants whose flowers possess but one stamen.

Monandria, from *monos*, Greek, one, and *aner*, G. a man.—The first class, as containing one stamen only, is called figuratively the husband. Example, *Valeriana rubra*. *Vide plate 6. letter (a)*

The Pistillum in common circumstances.—The common form of flowers is to have the pistillum, or pistilla, the females, in the center of the flower, and the stamina, or males, surrounding these. Example, *Valeriana rubra*. *Pl. 6. (b)*

Bisexual simple, from *bis*, Latin, two, and *sexualis*, L. sexual.—Possessing the two sexes, the pistilla and stamina, in the same corolla; *simple*, as these two organs of plants are not affixed to a spadix, or are confounded together, as in the bisexual complex. Example, *Valeriana rubra*. *Pl. 6. (a) (b)*

Bisexual complex.—The two sexes placed in the same corolla, but the stamina have this peculiarity of origin. These are either affixed to a spadix, or grow out of the pistillum itself. Example, *Arum*. *Vide pl. 14. p. 14, letter (e)*.—*Hippuris*. *Vide pl. 12. p. 12. (a)*

Unisexual, from *unus*, L. one, and *sexualis*, L. sexual,—Is when the corresponding sexual organs are separate, being in different corollas. Example, *Callitriche Aquatica*. *Vide pl. 13. p. 13.*

Order.—The grand divisions of a class. Example, Monogynia, Order I. One Pistillum.

Monogynia, from *monos*, G. one, and *gune*, G. a woman.—The flower having only one pistillum, which is the female organ of a plant.

Digynia, from *dis*, G. two, and *gune*, G. a woman,—As possessing two pistilla. Example, *Callitriche Aquatica*. *Vide pl. 13. p. 13. (d)*

Gynandria, from *gune*, G. a woman, and *aner*, a man.—In compound botanical words, it is the custom for the first word to have the pre-eminence, and this word is applied where the stamina actually grow out of any part of the pistillum itself, or arise from a pillar, or pedicle, or spadix, supporting both stamina and pistillum. If the term were admissible these are the true hermaphrodite flowers. Example, *Hippuris. Arum*. *Vide pl. 12. p. 12, and pl. 14. p. 14.*

Monœcia, from *monos*, G. one, and *oikos*, G. an habitation,—Is where are found on the same plant the pistilla and stamina in separate corollas. The flower having only pistilla is called a female flower, or pistil-bearing flower; that possessing the stamina apart, a male flower, or stamen-bearing flower. These are also called unisexual, contradistinguished from bisexual. Example, *Callitriche*. *Vide pl. 13. p. 13.*

Polygamia, from *polus*, G. many, and *gamos*, G. marriage,—Is where, along with a bisexual flower, is also to be met an unisexual flower on the same or different plants. Example, *Callitriche*. *Vide Tab. 11.*

Spadix,—Is a fleshy receptacle of such flowers as are usually first enclosed in a spatha or sheath. Example, *Arum*. *Vide pl. 14. p. 14. (e)*

Stigma bifid.—Cloven, split in two. *Salicornia*. *Vide pl. 11. p. 11. (f)*

Essential Generic Characters,—Are the most prominent features of plants, taken from the flower in which all the species collected under one name agree, and supposed to be sufficient to establish or constitute the genus. The examples are *Salicornia*, &c.

D E F E N C E

OF THE

REFORMED SEXUAL SYSTEM.

IN MY REFORMED SEXUAL SYSTEM,* the *classical character*, as derived from the *Number of Stamina*, is the most simple imaginable; which should be the case, as being the first step in Botany, and hence a very pleasing uniformity in the *classes* prevails throughout.

The *Orders* arise from the consideration of the peculiar circumstances of the pistilla; and here also much uniformity is preserved. Had the Orders, III. GYNANDRIA, IV. MONŒCIA, and V. POLYGAMIA, been retained as *classes*, MONANDRIA, which before was employed as the *classical character*, must then be used as an *Order*, and *uniformity* be altogether destroyed; and much *perplexity* to the student (as in teaching I have often found) be produced.

Where any flower is with difficulty arranged, the student, in the old system, has to jump from one class to another, and the doubt then is seldom cleared up without much labour, which is now completely obviated by bringing, from this reform of the sexual system, all the possible situation of things in a preliminary table under one head. For instance, suppose the student met with the *Valeriana rubra*, RED VALERIAN, the first exceptional species, (*Vide Table I. and Plate 6. facing Page 6*) in none of the twenty-four classes of Linnæus, would he be able to find it, as being an *objectional species*, which he is supposed by Linnæus to be able to refer at once to its kindred genus, although this might occur to the student at his very onset in the study of botany.

The SALICORNIA (*Genus I.*) is somewhat more easy; but the HIPURIS (*Genus II.*) is extremely difficult. It is placed in the class MONANDRIA by Linnæus, although he denies a calyx. Now if the filament arises out of germen itself, and is not seated on a calyx crowning the germen, it would properly fall into another class, GYNANDRIA,

* Those persons who wish to obtain a scientific knowledge of the several systems, will consult our *Elements of Botany*.

(so placed here, *vide Exceptional Species 5.*) and if with bisexual, unisexual flowers were found, in the Class POLYGAMIA, (*Vide Exceptional Species the 10th.*)

Under these three views has the present flower been placed by different botanists in three different classes; and if the student did not hit upon the same point of distinction as the respective authors, he would be baffled in his research, whereas from my preliminary table of the reformed system no possible mistake can arise to him.

So of CALLETRICHE, (*Genus III.*) whose flowers are sometimes upon the same plant bisexual simple, or all unisexual, (*Vide the 7th Exceptional Species*) and again, a compound of the two, (*Vide Exceptional Species 9.*) which upon any other plan than mine would create much perplexity.

The APHANES ALCHEMILLA (*Vide Tab. I. Exceptional Species 2.*) is another puzzle, like the red Valerian. In Withering it is a genus of itself placed in the first class, and by Dr. Smith placed as a species of Alchemilla in the fourth.

The next genus, the ARUM, (*Genus IV.*) is even doubted by Linnæus under what class it should be arranged. He has thought fit to place it as a GYNANDRIOUS plant; but Schreber, Berkenhout, &c. have esteemed it of the class MONÆCIA, and displaced it from its first situation; but in our table, under whatever aspect we view it, it presents itself at once, as being placed under each point of view. (*Vide Tab. Gen. 4. and Exceptional Species 8.*)

In like manner (*Genus V.*) ZOSTERA is placed in Class XX. Gynandria, by Linnæus, and in the first class by Dr. Smith. The same remarks, as made respecting VALERIANA RUBRA, will equally apply to OPHRYS SPIRALIS and OVATA (*Vide plate 8 and 9, facing p. 8 and 9*), SALIX MONANDRA (*Vide plate facing p. 9*), and CALLETRICHE VERNA (*plate 13 facing p. 13.*)

CHARA (*Genus VII.*) is placed in Class XXI. *Monæcia*, by Linnæus, and in Class I. *Monandria*, by Dr. Smith. Our table is so contrived that if the student fails in one step, he has not far to go in order to have his wanderings corrected.

In a word, as by system is only meant a plan to facilitate the acquirement of the knowledge of plants, the more easy this is contrived to accomplish the proposed end, the better such a system will be accounted; and I have endeavoured so to contrive this, that I hope no longer any very great obstacles can arise in the way of the stu-

dent, and that this will plead my excuse with a discerning and indulgent public for venturing to step out of the beaten path, to attempt the *reformation* of a system which has conferred immortal honour upon the inventor, and received the general plaudits and admiration of the learned throughout Europe. It appeared to me more advisable to *reform* the whole, than to make any *partial amendments*;* to have the system as delivered to us by Linnæus, or pulled to pieces, and a new one erected out of the materials of the old; a *system* which I hope may not moulder, like the other systems,† into the sand of which they were composed, but like the youthful PHœNIX arising from the ashes of its parent, or as a rock in the midst of the ocean, may remain until “the wreck of elements and the crush of worlds.”

* Many alterations in the Sexual System have been attempted. The enlightened pupil of Linnæus, THUNBERG, abolished the classes XX. *Gynandria*, XXI. *Monœcia*, XXII. *Diacia*, and XXIII. *Polygamia*. GMELIN, professor at Gottingen, to the alterations introduced by Thunberg, in publishing a new edition of Linnæus's *Systema Naturæ*, added the abolition of Class XII. *Icosandria*; and the no less celebrated Dr. SMITH, preserving the rest of the system entire, has abolished Order V. *Monogamia* in Class IX. *Syngenesia*, and Class XXIII. *Polygamia*. “To his class *Polygamia*,” says Dr. Smith, “many students of tropical plants *justly* objected in his lifetime, and he, as well as his son, listened to their observations.” Dr. WITHERING, in his arrangement of British Plants, has followed the system of Gmelin. Professor MARTYN, speaking of the changes introduced by SCHREBER, in his new edition of Linnæus's *Genera Plantarum*, says, that his reduction of Class XX. *Gynandria*, appears “*reasonable*,” yet the singularity of the order *Diandria* surely demanded a separate place to itself. But when he comes to mention the incorporation by GMELIN of the class *Icosandria* into the *Polyandria*, he declares this change to be “*abominable*.”

I am aware, that venturing to reform in such a degree the sexual system, as I have done, will bring upon me much, I trust unmerited, reproach. I am conscious, indeed, as well as others, that the credit of the *Sexual System* of Linnæus, as an *invention*, surpasses all power of praise, and hence has found enthusiastic admirers; and with timid hands I have ventured to take the *superstructure* he raised to pieces, and build up from the *old materials*, which I have *carefully* and *religiously* preserved, a NEW EDIFICE, suited to modern improvement and convenience; hoping, however, that those who may, hereafter, publish the works of Linnæus, will edit the Sexual System as delivered by himself, and not bring forward, in the works said to be those of Linnæus, what he never either thought or wrote. For a full defence of the *Reformed Sexual System*, vide my “*New Illustration of the Sexual System*,” just published, where this subject has been particularly considered and discussed.

† Not less than sixty systems of Botany have been published, chiefly alterations and amendments of each other, most of which are now forgotten.

GENERA AND EXCEPTIONAL SPECIES

OF

CLASS I.

MONANDRIA.

ONE STAMEN.

GENERA.

		Page.
1. SALICORNIA.	GLASS-WORT	11
2. HIPPURIS.	MARE'S-TAIL	12
3. CALLITRICHE.	STAR-WORT	13
4. ARUM.	CUCKOO-PINT,	14
5. ZOSTERA.	SEA-WEACK	15
6. ZANNICHELLIA.	POND-WEED	16
7. CHARA.	STONE-WORT	17

EXCEPTIONAL SPECIES.

1. VALERIANA RUBRA.	RED VALERIAN,
2. APHANES ALCHEMILLA.	PARSLEY PIERT.
3. OPHRYS SPIRALIS.	SPIRAL OPHRYS.
4. OPHRYS OVATA.	EGG OPHRYS.
5. HIPPURIS VULGARIS.	COMMON HORSE-TAIL.
6. SALIX MONANDRA.	ONE-STAMENED WILLOW,
7. CALLITRICHE AQUATICA.	AQUATIC STARWORT.
8. ARUM MACULATUM.	SPOTTED CUCKOO-PINT.

For these, vide Table I, page 5.



NATURAL AND SECONDARY GENERIC CHARACTERS.

Class I. *Monandria*. Order I. *Monogynia*.

GENUS 1.

SALICORNIA. *Salt-wort*.

(A compound name from SAL, L. *salt*, as this maritime plant is burnt to obtain *alkali*; and CORNU, L. *a horn*, from the resemblance its branches have, or their articulations, to *horns*;—*Salt-wort*, the English name, expresses the first consideration as above, and the old English or Saxon word *wort* means *plant*.)

THE NATURAL GENERIC CHARACTERS.

- I. CALYX. A *Perianth*, tetragonal, truncated, ventricose, abiding. Vide Plate II. (*a*.)
- II. COROLLA, none.
- III. STAMEN. *Filament*, one; simple, longer than the calyx. (*b*)
Anthers, two, oblong, twin, erect. (*c*)
- IV. PISTILLUM. *Germen*, ovate oblong. (*d*) *Style*, simple, under the stamen. (*e*) *Stigma* bifid. (*f*)
- V. PERICARPIUM, none; *Calyx* serving the office, ventricose, inflated.
- VI. SEED, one. (*h*)

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous or frutescent, without leaves, branches *opposite*, cylindric, articulate, (*i*) articulations *bidentate*, (*k*) superior articulations flower-bearing. (*l*)
- II. FLOWERS, very small, sessile, generally three on each side. (*m*)
- III. HABITATION, the sea-shore.

Of this Genus there are two Species.

Class I. *Monandria*. Order I. *Monogynia*.

GENUS 2.

HIPPURIS. *Mare's-tail*.

(From HIPPOS, G. a *horse*, and OURA, G. a *tail*, which appearance this plant is supposed to resemble.—In old Gerard the *Equisetum* is called the *Male Horse-tail*, and the HIPPURIS the *Female Horse-tail*. HUDSON was the first who named the Hippuris *Mare's-tail*.)

THE NATURAL CHARACTERS.

- I. CALYX, none.
- II. COROLLA, none.
- III. STAMEN. *Filament* one, sitting upon the receptacle of the flower.
(a) *Anther* semibifid. (b)
- IV. PISTILLUM. *Germen* oblong, above. (c) *Style* one, subulate, erect, between the stamen and the stem, longer than the stamen. (d) *Stigma* acute. (e)
- V. PERICARPium, none.
- VI. SEED. One, roundish, naked. (f)

THE SECONDARY CHARACTERS.

- I. STEM, cylindric, simple. (g)
- II. LEAVES, verticillate. (h)
- III. FLOWERS, axillary, sessile. (i)
- IV. HABITATION. In rivers, ponds, and stagnant waters.

Of this Genus there is one Species.

Class I. *Monandria*. Order II. *Digynia*.

GENUS 3.

CALLITRICHE. *Star-wort*.

(From *KALOS*, G. *beautiful*, and *THRIX*, G. *hair*, from the matting together of its leaves over deep marshes, that a person might walk over them without sinking;—the English appellation is from the upper part of the foliage, making the appearance of a *star*.)

THE NATURAL CHARACTERS.

- I. CALYX, none.
- II. COROLLA. *Petals*, two, incurved, acuminate, channelled, opposite. (a) (a)
- III. STAMEN. *Filament* one, long, recurved. (b) *Anther* simple. (c)
- IV. PISTILLUM. *Germen* roundish. (d) *Styles* two, capillary, recurved. (e) (e) *Stigmata* acute. (f) (f)
- V. PERICARPium. *Capsule* roundish, (g) quadrangular, compressed, bilocular. (h)
- VI. SEED, one, oblong. (i)

THE SECONDARY CHARACTERS.

- I. STEM, small, branched.
- II. LEAVES opposite, (k) clustered above. (l)
- III. FLOWERS, small, axillary, sessile, (m) bisexual, or unisexual, monœcious.
- IV. HABITATION. Lakes and stagnant waters.

Of this Genus there is one Species.

Class I. *Monandria*. Order III. *Gynandria*.

GENUS 4.

ARUM. *Cuckoo-pint*.

(From *ARA*, *G. noxious*, alluding to the acrimony of its root, or from *JARON*, Arab. *a dart*, its leaves being shaped like a dart ;—the English, *Cuckoo-pint*, from its appearing in the *Spring* when the cuckoo sings ; and *pint* means *dart*.)

THE NATURAL CHARACTERS.

- I. CALYX. *Spatha* monophyllous, very large, (a) oblong, convolute at the base, (b) converging at the apex, (c) compressed in the belly, (d) internally coloured.
- II. SPADIX, club-shaped, very simple, rather shorter than the spathe, coloured, (e) beneath covered with germina, (f) withering above the germina. (l)
- III. COROLLA, none.
- IV. STAMINA. *Filaments*, none, unless you count as such the nectaries thickened at the base, ending in filiform cirrhi, placed in two orders, proceeding from the middle of the spadix. (g)(g)(g) *Anthers* many, sessile, four cornered, (h) interposed between the double orders of cirrhi, growing to the spadix. (h)
- V. PISTILLUM. *Germina* many, investing the base of the spadix, placed beneath the stamens, obovate. (i) (i) *Styles* none. *Stigmata* barbed with villi. (k)
- VI. PERICARPium. Berries as many as the germina, globose, (l) (l) unilocular. (m)
- VII. SEEDS, many, roundish. (n)

THE SECONDARY CHARACTERS.

- I. LEAVES hastate, entire (or multifid).
- II. FLOWERS sessile, unisexual, staminate, (h) and pistilliferous (f)
- III. HABITATION. In shady places, or in ditches protected by an hedge.

Of this Genus there is one Species.

Class I. *Monandria*. Order III. *Gynandria*.

GENUS 5.

ZOSTERA. *Grass-wrack*.

(From *ZOSTER*, *G*, *a girdle*, in allusion to its shape;—and *GRASS-WRACK*, from its resembling a long blade of grass, and as being thrown up upon the sea-coast.)

THE NATURAL CHARACTERS.

- I. CALYX. The base of the leaf a sheath, converging longitudinally, above on both sides emarginate, including the spadix. (*a*) No perianth.
- II. SPADIX, linear, flat; on one side above furnished with stamens, (*b*) and beneath with pistilla. (*c*)
- III. COROLLA, none.
- IV. STAMINA. *Filaments* alternate, many, very short, inserted into the spadix above the germina. (*b*) (*b*) (*b*) *Anthers* ovate-oblong, nodding, obtuse, above subulate, incurved. (*c*)
- V. PISTILLA. *Germina* ovate, compressed, two-edged, subpedicelled, affixed to the apex, nodding, alternate. (*d*) (*d*) (*d*) (*d*) *Styles* none. *Stigmata* two, capillary, simple. (*e*)
- VI. PERICARPIMUM, membranous, not changing, gaping longitudinally at the lateral angle. (*f*)
- VII. SEED, one, ovate. (*g*)

THE SECONDARY CHARACTERS.

- I. STEM, jointed. (*h*)
- II. LEAVES alternate, entire, linear.
- III. FLOWERS, small, sessile, on a spadix.
- IV. HABITATION. On the sea-shore, and in salt marshes.

Of this Genus there is one Species.

Class I. *Monandria*. Order IV. *Monœcia*.

GENUS 6.

ZANNICHELLIA. *Pond-weed*.

(Named after ZANNICHELLIUS, a botanist;—and the English name is from this plant growing common in water.)

THE NATURAL CHARACTERS.

MALE FLOWER. (A)

- I. CALYX, none.
- II. COROLLA, none.
- III. STAMINA. *Filament* one, simple, long, upright. (a) *Anther* ovate, upright. (b)

FEMALE FLOWER. (B)

- I. CALYX. *Perianth*, monophyllous, ventricose, tridentate, scarcely manifest. (c)
- II. COROLLA, none.
- III. PISTILLUM. *Germina* four, horn-shaped, converging. (d) *Styles*, as many, simple, somewhat spreading. (e) *Stigmata*, ovate, flat, patent outwards. (f)
- IV. PERICARPium, none.
- V. SEEDS, as many as the germina, oblong, (g) at both ends acuminate, (i) (i) on one side gibbous, covered with cortex, curved, reflexed.

THE SECONDARY CHARACTERS.

- I. STEM immersed in water, weak, slender, articulated, very much branched.
- II. LEAVES, linear, alternate beneath, (k) (k) or opposite, (l) (l) and in bunches towards the summit of the branches.
- III. FLOWERS, axillary. (m)
- IV. HABITATION, in ditches and stagnant waters.

Of this Genus there is one Species.

Class I. *Monandria*. Order IV. *Monæcia*.

GENUS 7.

CHARA. *Stone-wort*.

(From KARA, G. *joy*, the delight or joy of the water;—and the English name from its acid juice decomposing the water, and the selenite attaching itself to the plant, making about it a *stony* incrustation.)

THE NATURAL CHARACTERS.

MALE FLOWER. (A)

- I. CALYX, none.
- II. COROLLA, none.
- III. STAMEN. *Filament*, none. *Anther*, globular, at the base of the germen, outside of the calyx. (a) (a)

FEMALE FLOWER. (B)

- I. CALYX. *Perianth*, four leaved; leaflets subulate, long, persisting. (b) (b) (b) (b)
- II. COROLLA, none.
- III. PISTILLUM. *Germen* turbinate, marked with five spiral striæ. (c)
Style none. *Stigma* five-toothed, small. (d)
- IV. PERICARP. *Berry* encrusted, ovate-oblong, striated, one-celled. (e) (e)
- V. SEEDS, many, sperical, very minute. (f)

THE SECONDARY CHARACTERS.

- I. STEM, branchy, (g) fragile, more or less rough to the touch.
- II. LEAVES, linear, toothed. (h)
- III. FLOWERS, monœcious, placed on the leaves, (i) male and female contiguous.
- IV. HABITATION, in stagnant waters.

Of this Genus there is one Species.

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Class 2.

DIANDRIA.

Two Stamina



CLASS II.

DIANDRIA.

TWO STAMINA.

THE
 GENERA AND EXCEPTIONAL SPECIES
 OF
 CLASS II.

DIANDRIA.
 TWO STAMINA.

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5. SCHÆNUS MARISCUS.	LONG-ROOTED BOG-RUSH.
6. SCHÆNUS ALBUS.	WHITE-FLOWERED BOG-RUSH.

For these, vide Table III. facing page 21.

Class II. *Diandria*. Order I. *Monogynia*.

GENUS 8.

LIGUSTRUM. *Privet*.

{(From *LIGO*, L. *to bind*, its slender and flexible twigs being used as bands;—the English name from its forming a *retired place* or *arbour*, being used commonly for that purpose in gardens.)

THE NATURAL CHARACTERS.

- I. CALYX. *Perianth* monophyllous, tubular, very small; *Mouth* four-toothed, erect, obtuse. (a)
- II. COROLLA, monopetalous, funnel-shaped. *Tube* cylindrical, longer than the calyx. (b) *Border* quadripartite, patent. (c) (c) *Laciniae*, ovate.
- III. STAMINA. *Filaments* two, opposite, simple. (d) (d) *Anthers* erect, nearly the height of the corolla. (e) (e)
- IV. PISTILLUM. *Germen* roundish. (f) *Style* very short. (g) *Stigma* bifid, obtuse, rather thickish. (h)
- V. PERICARP. *Berry* globular, smooth. (i) unilocular. (k)
- VI. SEEDS, four, on one side convex, (l) on the other angular. (m)

THE SECONDARY CHARACTERS.

- I. A SHRUB. *Stem*, woody, branched.
- II. LEAVES, ovate-lanceolate, entire, smooth, opposite. (o) (o) *Petiolus* short. (p)
- III. FLOWERS, white, in corymbus. (q) *Berry* black.
- IV. HABITATION, hedges and woods.

Of this Genus there is one Species.

Class 2.

DIANDRIA.

Two Stamina

CLASS II.

DIANDRIA.

TWO STAMINA.

Class II. *Diandria*. Order I. *Monogynia*.

GENUS 12.

SALVIA. *Sage*.

(Derived from *salus*, L. *health*; no plant having been more praised as a preservative of health; hence the adage—

Cur moriatur homo ubi salvia crescit in horto?

And again—

Salvia cum Ruta facient tibi pocula tuta.

The English appellation from its supposed power of making a person *sage*, or wise.)

THE NATURAL CHARACTERS.

- I. CALYX. *Perianth*, monophyllous, tubular, striated, (a) above gradually enlarged, and compressed; the *Mouth* erect, the inferior bidentate. (b) (b)
- II. COROLLA, monopetalous. The *Tube* above enlarged, compressed. The *Border* ringent. The superior *lip* concave, compressed, incurved, emarginate, (c) the inferior *lip* broad, trifid; (d) the middle lacinia larger, roundish, emarginate. (e)
- III. STAMINA. *Filaments* four, two short, (f) (f) to these two are fixed nearly in their middle two other longer filaments, transversely; at the lower extremity are placed two *glands*, (g) (g) at the upper extremity of the longer filaments the *anthers*. (h) (h)
- IV. PISTILLUM. *Germen* quadrifid. (i) *Style* filiform, very long, in the direction of the stamina. (k) *Stigma* bifid. (l)
- V. PERICARP, none. The *Calyx* slightly conniving, having the seeds in its bosom. (m)
- VI. SEEDS, four, roundish. (n)

THE SECONDARY CHARACTERS.

- I. STEM, erect, or procumbent.
- II. LEAVES, opposite, entire, or cut, the superior sessile, (o) the inferior petioled.
- III. FLOWERS, verticillate, (p) violet-colour.
- IV. HABITATION, dry meadows and hills.

Of this Genus there are two Species.

Class II. *Diandria*. Order I. *Monogynia*.

GENUS 13.

VERBENA. *Vervain*.

(Pliny says, *Herba nulla Romana nobilitatis plus habet quam Hierobotane*. Nostri *Verbenam* vocant. Hæc est, quam legatos ad hostes indicavimus. Hæc Jovis mensa verritur; domus purgantur, lustranturque.—*Hierobotane* is from *iera*, G. sacred, and *botane*, G. an herb. *Verbena* is derived from this compound Greek word, and signifies holy-herb;—our English appellation *Vervain* is from the Latin.)

THE NATURAL CHARACTERS.

- I. CALYX. A *Perianth* monophyllous, angular, tubular, (a) linear, five-toothed. (b) The fifth *tooth* truncated, (c) persisting.
- II. COROLLA, monopetalous, unequal. *Tube* cylindrical, straight, length of the calyx, presently dilated, incurved. (d) The border spreading, half-five-cleft, the *laciniæ* rounded, nearly equal. (e)
- III. STAMINA. *Filaments* (four) setaceous, very short, concealed within the tube of the corolla, of which two are shorter than the others. *Anthers* incurved, as many as the filaments, or only two. (f)
- IV. PISTILLUM. *Germen* four-cornered. (g) *Style* simple, filiform, the length of the tube. (h) *Stigma* obtuse. (i)
- V. PERICARP, very slender, and scarcely manifest, or not existing. *Calyx* containing the seeds. (k)
- VI. SEEDS, two, or four, oblong. (l)

THE SECONDARY CHARACTERS.

- I. STEM, upright, single, branchy, quadrangular. (m)
- II. LEAVES, opposite, multifid. (n) (n)
- III. FLOWERS, small, of a light purple.
- IV. HABITATION, in dry meadows and road-sides.

Of this Genus there is one Species.

Class II. *Diandria*. Order I. *Monogynia*.

GENUS 14.

LYCOPUS. *Gypsy-wort*.

(From *LUKOS*, G. a *wolf*, and *POUS*, G. *foot*, the leaves being thought to resemble the *foot* of that animal;—and the English name is from its juice being employed by *gypsies* to give them a dark colour, and the word *wort* is Saxon, meaning *plant*.)

THE NATURAL CHARACTERS.

- I. CALYX. A *Perianth* monophyllous, tubular, (a) semiquinquefid the *laciniæ* narrow, acute. (b)
- II. COROLLA, monopetalous, unequal. Tube cylindric, the length of the calyx. (c) *Border* quadrifid, obtuse, spreading, (d) the *laciniæ* nearly equal; the superior broader, emarginate, (e) the inferior ones less so.
- III. STAMINA. *Filaments* two, nearly the length of the corolla inclined towards its superior segment. (f) *Anthers* small. (g)
- IV. PISTILLUM. *Germen* quadrifid. (h) *Style* filiform, straight, length of the stamina. (i) *Stigma* bifid, reflexed. (k)
- V. PERICARP, none. *Calyx* containing the seeds in its bosom. (l)
- VI. SEEDS, four, roundish. (m)

THE SECONDARY CHARACTERS.

- I. STEM, branchy, quadrangular. (o)
 - II. LEAVES, opposite, wrinkled deeply, jagged. (p)
 - III. FLOWERS, axillary, verticillate, (q) white, marked in the inside with purple spots.
 - IV. HABITATION, on the banks of rivers.
- Of this Genus there is one Species.

Class II. *Diandria*. Order I. *Monogynia*.

GENUS 15.

CIRCÆA. *Enchanter's Night Shade*.

{From *Circe*, the enchantress, who converted Ulysses's companions into swine;—the English name from its employment in sorcery; and *night-shade* from its similarity of leaf to that plant.)

THE NATURAL CHARACTERS.

- I. CALYX. A *Perianth* diphyllous; the leaflets ovate, concave, deflected, deciduous. (*a*)
- II. COROLLA. *Petals*, two, obcordate, rather shorter than the calyx, patent, equal. (*b*)
- III. STAMINA. *Filaments* two, capillary, erect, the length of the calyx. (*c*) (*c*) *Anthers* roundish. (*d*)
- IV. PISTILLUM. *Germen* pear-shaped, beneath. (*e*) *Style* filiform, the length of the stamina. (*f*) *Stigma* obtuse, emarginate. (*g*)
- V. PERICARP. *Capsule* pear-shaped, ovate, trifid, (*h*) bilocular, (*i*) bivalved, (*k*) (*k*) gaping from the base towards the apex.
- VI. SEEDS, solitary, oblong, narrower below. (*l*)

THE SECONDARY CHARACTERS.

- I. STEM, erect or ascending, branchy.
- II. LEAVES, opposite, ovate, or heart-shaped, (*m*) pubescent or smooth.
- III. FLOWERS, white, or reddish, on peduncles, (*n*) in spikes, (*o*)
- IV. HABITATION, in moist and shady places.

Of this Genus there are two Species,

Class II. *Diandria*. Order I. *Monogynia*.

GENUS 16.

ANTHOXANTHUM. *Sweet Vernal Grass*.

(From ANTHOS, G. *a flower*, and ZANTHOS, G. *yellow*, from the yellow appearance of its spike; and the English from this grass giving odour to hay, being that grass which smells so delightfully, and as coming early.)

THE NATURAL CHARACTERS.

- I. CALYX. A *Glume* bearing one flower, bivalved, (a) (a) the valves ovate, acuminate, concave, the inner one largest. (b)
- II. COROLLA. *Glume* one-flowered, bivalved, (c) (c) length of the larger valve of the calyx, both valves sending out an arista from the lower part of their back, (d) (d) one arista becomes geniculate. (e)
- III. NECTARY, diphyllous, very slender, cylindric, the leaflets, subovate, embracing. (f) (f)
- IV. STAMINA. *Filaments* two, capillary, very long. (g) (g) *Anthers* both ends bifurcate. (h) (h)
- V. PISTILLUM. *Germen* oblong. (i) *Styles* two, filiform. (k) (k) *Stigma* simple. (l) (l)
- VI. PERICARP. *Glume* of the corolla, and the leaflets of the nectary, (m) adhering to the seed.
- VII. SEED, one, on both ends acuminate, somewhat columnar. (o)

THE SECONDARY CHARACTERS.

- I. STEM. A culm, articulate, (p) very simple,
- II. LEAVES, small, grass-like. (q)
- III. FLOWERS, spiked. (r) The spike odoriferous after drying, and turning yellow.
- IV. HABITATION, in meadows.

Of this Genus there is one Species.

Class II. *Diandria*. Order II. *Gynandria*.

GENUS 17.

ORCHIS. *Orchis*.

(From ORCHIS, G. *an olive berry*; the roots of this tribe being often found round, so as to resemble this fruit;—no English generic word.)

THE NATURAL CHARACTERS.

- I. CALYX. *Spathes* scattered. (a) (a) (a) *Spadix* simple. (b) *Perianth* none.
- II. COROLLA. *Petals* five, (c) the *three* exterior, (d) (d) (d) and the *two* interior, (e) (e) rising above so as to form an helmet.
- III. NECTARY monophyllous, (f) affixed to the receptacle by the inferior claw, betwixt the division of the petals. The *superior lip* erect, very short, (g) the *inferior* large, spreading, broad. (h) The *tube* behind, horn-shaped, nodding. (i)
- IV. STAMINA. *Filaments* two, very slender, sitting upon the pistillum. (k) (k) *Anthers* obovate, erect, covered by a bilocular folding of the superior lip of the nectary. (l)
- V. PISTILLUM. *Germs* oblong, twisted, beneath. (m) *Style* growing to the superior lip of the nectary, very short. (n) *Stigma* compressed, obtuse. (o)
- VI. PERICARP. A *Capsule*, oblong, (p) unilocular, (q) three-keeled, (r) (r) (r) opening in three directions under the keels, (s) cohering at the apex and base. (t) (t)
- VII. SEEDS, numerous, very small, like saw-dust. (v)

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, simple.
- II. LEAVES, alternate, (w) (w) sheathy, (x) entire.
- III. FLOWER, terminal, spiked. (y)
- IV. HABITATION, various, most frequent in marshy grounds.

Of this Genus there are nine Species.

Class II. *Diandria*. Order II. *Gynandria*.

GENUS 18.

SATYRIUM. *Satyrion*.

(L. from its *grotesque* form, resembling in drollery a *Satyr*. Others would derive this and the *Orchis* from different considerations, than those delivered; but I have preferred the present derivations;—the English name is the Latin anglicized.)

THE NATURAL CHARACTERS.

- I. CALYX. *Spatha* scattered. (a) (a) *Spadix* simple. (b) *Perianth* none.
- II. COROLLA. *Petals* five, ovate-oblong, three exterior (c) (c) (c) two interior, (d) (d) conniving above into an helmet.
- III. NECTARY monophyllous, (e) annexed to the receptacle by the inferior side between the division of the petals. The *superior lip* erect, very short, (d) the *inferior lip* flat, pendulous, (e) with a bag-like appearance arising from behind at the base. (f)
- IV. STAMINA. *Filaments* two, very slender, very short, placed upon the pistillum. (g) (g) *Anthems* obovate, (h) covered by a bilocular duplicature of the superior lip of the nectary. (i)
- IV. PISTILLUM. *Germen* oblong, twisted, beneath. (k) *Style* adhering to the superior lip of the nectary, very short. *Stigma* compressed, obtuse. (l)
- VI. PERICARP. A *Capsule* oblong, (m) unilocular, (n) three-keeled, (o) (o) (o) gaping in three directions under the keels, (p) cohering at the apex and base. (q) (q)
- VII. SEEDS, numerous, very small, saw-dust like. (r)

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, simple.
- II. LEAVES, alternate, (s) (s) vaginant, (t) entire.
- III. FLOWERS, terminal, spiked. (v)
- IV. HABITATION, various.

Of this Genus there are four Species.

Class II. *Diandria*. Order II. *Gynandria*.

GENUS 19.

OPHRYS. *Ophrys*.

(From OPHRUS, G. the *eye-brow*, from its corolla leaves hanging over like the eye-brow ;—no English generic word.)

THE NATURAL CHARACTERS.

- I. CALYX. *Spatha* scattered. (a) (a) *Spadix* simple. (b) (b) *Petrianth* none.
- II. COROLLA. *Petals* five, oblong, above conniving, equal, (b) (b) (b) (b) (b) two of which are the outer. (c) (c)
- III. NECTARY longer than the petals, depending, (d) behind only keeled.
- IV. STAMINA. *Filaments* two, very short, placed upon the pistillum. (e) *Anthers* erect, (f) (f) covered by the inner margin of the nectary. (g)
- V. PISTILLUM. *Germen* oblong, twisted, beneath. (h) *Style* adhering to the interior margin of the nectary. *Stigma* obscure. (i)
- VI. PERICARP. A *Capsule* subovate, three-cornered, obtuse, striated, (k) trivalved, (l) unilocular, (m) gaping at the keeled angles.
- VII. SEEDS, numerous, saw-dust like. (n) The *Receptacle* linear, adhering to each valve of the pericarp. (o)

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, simple.
- II. LEAVES, alternate, entire, vaginant. (p)
- III. FLOWER, terminal, spiked. (q)
- IV. HABITATION, in woods and marshes, dry meadows, and chalky grounds.

Of this Genus there are eleven Species.

Class II. *Diandria*, Order II. *Gynandria*.

GENUS 20.

SERAPIAS. *Serapias*.

(From SERAPIAS, G. one of the rustic gods of the Ancients;—the English generic word is the same.)

THE NATURAL CHARACTERS.

- I. CALYX. *Spathe* scattered. (a) (a) *Spadix* simple. (b) *Perianth* none.
- II. COROLLA. *Petals* five, ovate-oblong, erecto-patulous, above conniving. (b) (b) (b) (b) (b)
- III. NECTARY, length of the petals, hollowed at the vase, honey bearing, ovate, beneath gibbous, trifid, acute: the intermediate heart-shaped, obtuse; the base three-toothed, with a bifid cicatrix. (c)
- IV. STAMINA. *Filaments* two, very short, placed upon the pistillum. (d) *Anthers* erect, placed under the superior lip of the nectary. (e)
- V. PISTILLUM. *Germen* oblong, twisted, beneath. (f) *Style* adhering to the superior lip of the nectary. *Stigma* obscure. (g)
- VI. PERICARP. *Capsule* obovate, (h) obtusely three-cornered, (i)(i)(i) with three adhering keels, trivalved, gaping under the keels, (k) unilocular. (l)
- VII. SEED, numerous, saw-dust like. (m) The *Receptacle* linear, adhering to each valve of the pericarp. (n)

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, simple.
- II. LEAVES, alternate, (o) vaginant, (p) entire.
- III. FLOWERS, terminal, loosely spiked. (q)
- IV. HABITATION, woods, moors, and heaths.

Of this Genus there are five Species.

Class II. *Diandria*, Order II. *Gynandria*,

GENUS 21.

CYPRIPEDIUM. *Ladies'-Slipper*.

(From KUPRIS, G. *Venus*, and POPION, G. a *Shoe* ;—the English name from the Virgin Mary, and from the appearance of the nectary, it being formerly called *My Lady's Slipper*.)

THE NATURAL CHARACTERS.

- I. CALYX. *Spathes* scattered. (a) *Spadix* simple. (b) *Perianth* none,
- II. COROLLA, four, very long, spreading. (c) (c) (c) (c)
- III. NECTARY within the inferior petal, (d) slipper-form, inflated, obtuse, hollow, shorter than the petals, broader. (e) *Upper lip* ovate, flat, inflexed, small.
- IV. STAMINA. *Filaments* two, very short, sitting on the pistil, (g) *Anthers* erect, covered by the upper lip of the nectary. (f)
- V. PISTILLUM. *Germen* long, twisted inferior. (h) *Style* very short, (i) growing to the upper lip of the nectary. *Stigma* indistinct. (k)
- VI. PERICARP. *Capsule* nearly ovate, three angled, obtuse, striated, (l) three valved, (m) (m) (m) one-celled. (n)
- VII. SEEDS, numerous, very small. (o) (o) *Receptacle* linear adhering longitudinally to each valve of the pericarp. (p)

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, simple.
- II. LEAVES, alternate, subvaginant, simple, entire. (q)
- III. FLOWERS, terminant, generally solitary, (r) of a brownish purple,
- IV. HABITATION, woods.

Of this Genus there is one Species.

Class II. *Diandria*. Order II. *Gynandria*.

GENUS 22.

MALAXIS. *Malaxis*.

(From MALATTO, G. to *soften*, from its demulcent qualities ;—no English name.)

THE NATURAL CHARACTERS.

- I. CALYX. *Spathes* small. (*a*) (*a*) *Perianth* none.
- II. COROLLA, *Petals* five ; three outer, two above, one beneath, lanceolate, obtuse, spreading, (*b*) (*b*) (*b*) two inner, linear, acute, reflexed above the germen. (*c*) (*c*)
- III. NECTARY in the middle of the corol, less than the petals, concave, with convex margins, (*d*) cordate, acuminate behind, bifid before. (*e*)
- IV. STAMINA. *Anthers* two, ovate, scarcely pedicelled, inserted by the margin in the urn of the pistillum, sitting on two depressions in the bottom. (*f*) (*f*)
- V. PISTILLUM. *Germen* pedicelled, somewhat cylindrical beneath. (*g*)
Style an urn in the middle of the nectary, halved, very short, spreading, bearing the stamina on the posterior margin.
Stigma before the depressions, near the anthers. (*h*)
- VI. PERICARP. *Capsule* pedicelled, (*i*) oblong, three-keeled, (*k*) trilocular, (*l*) opening under the keels, cohering at the apex and base. (*m*)
- VII. SEEDS, very minute. (*n*)

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, simple.
- II. LEAVES, alternate, (*o*) (*o*) vaginant, (*p*) entire.
- III. FLOWERS, in spikes, (*q*) very small, a dull yellow.
- IV. HABITATION, in turfy bogs.

Of this Genus there is one Species.

Class II. *Diandria*. Order III *Monœcia*.

GENUS 23.

LEMNA. *Duck's Meat*.

(From LEMNA, G. of Theophrastus;—the English appellation as affording food to Ducks.)

THE NATURAL CHARACTERS.

MALE FLOWER. (A)

- I. CALYX. *Perianth* monophyllous, roundish, gaping at the side, (a) dilated obliquely outwards, obtuse, spreading, depressed, large, entire.
- II. COROLLA, none.
- III. STAMINA. *Filaments* two, subulate, incurved, length of the calyx. (b) *Anthers* twin, globose. (c) (c)
- IV. PISTILLUM. *Germen* ovate. (d) *Style* short. (e) *Stigma* obscure. (f)
- V. PERICARP, abortive.

FEMALE FLOWER. (B)

- I. CALYX, as in the other. (g)
- II. COROLLA, none.
- III. PISTILLUM. *Germen* subovate. (h) *Style* short, abiding. *Stigma* simple. (i)
- IV. PERICARP. *Capsule* globular, with a point, (k) unilocular. (l)
- V. SEEDS, some, oblong, at both ends acute, nearly the length of the capsule, (m) on one side striated.

THE SECONDARY CHARACTERS.

- I. STEM, none.
- II. LEAVES, flat, suborbicular, in twos, (n) (n) attached to bladders. (o) (o)
- III. FLOWERS, male or female, at first enclosed within the leaves.
- IV. HABITATION, in ponds; the leaves rising in the spring, and sinking underneath the waters in the winter.

Of this Genus there are four Species.

* Properly this plant should fall under the order POLYGAMIA, as the abortive Pistillum is an after consideration. We have suffered it to retain its situation as placed by Linnæus, being scarce ever to be met with in flower.

Class II. *Diandria*. Order IV. *Diæcia*.

GENUS 24.

SALIX. *Willow*.

(From SALIO, L. to leap or spring, from the quickness of its growth ;
—the English is Saxon.)

THE NATURAL CHARACTERS.

MALE FLOWERS. (A)

- I. CALYX. A *common Ament*, oblong, on every side imbricated, (*a*) (possessing of an involucrum from the gem) (*b*) each scale uniflorous, oblong, flat, spreading. (*c*) (*c*) (*c*)
- II. COROLLA. *Petals* none.
- III. NECTARY. A gland cylindric, very small, truncated, honey-bearing in the center of the flower. (*d*) (*d*)
- IV. STAMINA. *Filaments* two, straight, filiform, longer than the calyx. (*e*) (*e*) (*e*) (*c*) *Anthers* twin, (*i*) quadrilocular. (*k*)

FEMALE FLOWERS. (B)

- I. CALYX. An *Amentum* as in the male, and the *scale* similar. (*l*)
- II. COROLLA, none.
- III. PISTILLUM. *Germen* ovate, attenuated into a style scarcely distinct, a little longer than the scales of the calyx. (*m*) *Stigmata* two, bifid, erect. (*n*) (*n*)
- IV. PERICARP. *Capsule* ovato-subulate, (*o*) unilocular, (*p*) bivalved. The *valves* revolute. (*q*)
- V. SEEDS, numerous, ovate, very small, crowned with a simple hirsute *Pappus*. (*r*)

THE SECONDARY CHARACTERS.

- I. STEM, a trunk, branches frutescent.
- II. LEAVES, alternate, (*s*) (*s*) petioled, (*t*) oblong.
- III. FLOWERS, on branches, terminal, (*u*) (*u*) peduncled. (*v*)
- IV. HABITATION, in woods, fields, and by the banks of ponds and rivers.

Of this Genus there are forty-five Species.

Class II. *Diandria*. Order IV. *Polygamia*.

GENUS 25. -

FRAXINUS. *Ash*.

(From FRANGERE, L. *to break*, the wood being brittle;—and the English is an old Saxon word.)

THE NATURAL CHARACTERS.

BISSEXUAL FLOWER. (A)

- I. CALYX, none, or a *Perianth* monophyllous, quadripartite, erect, acute, small.
- II. COROLLA, none, or *Petals*, four, linear, long, acute, erect.
- III. STAMINA. *Filaments* two, erect, much shorter than the corolla. (a) (a)
- IV. PISTILLUM. *Germen* ovate, compressed. (b) *Style* cylindric, erect. (c) *Stigma* rather thick, bifid. (d)
- V. PERICARP, none, except the incrustation of the seed. (e)
- VI. SEED, lanceolate, compresso-membranous, unilocular. (f)

FEMALE FLOWER. (B)

Flower exactly as the other, wanting only the stamina. (g)

THE SECONDARY CHARACTERS.

- I. STEM, a trunk, branching.
- II. LEAVES, opposite, (h) (h) pinnate, (i) (i) ending odd. (k)
- III. FLOWERS, bisexual, or unisexual.
- IV. HABITATION, in woods and open fields.

Of this Genus there is one Species.

Class 3.

TRIANDRIA.

Three Staminal

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CLASS III.

TRIANDRIA.

THREE STAMINA.



THE
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 OF
 CLASS III.

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 THREE STAMINA.

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7. STELLARIA MEDIA.	HAIRY STICK-WORT.
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For these, vide Table V, VI, VII, and VIII.

Class III. *Triandria*. Order I. *Monogynia*.

GENUS 26.

VALERIANA. *Valerian*.

(From VALERE, L. *to make strong*, having been early used as a corroborant;—the English from the Latin.)

THE NATURAL CHARACTERS.

- I. CALYX, scarce perceptible, a margin above the Germen. (*a*)
- II. COROLLA. *Tube* on the lower side nectariferous, gibbous. (*b*)
Limb five-cleft. (*c*) (*c*) (*c*) (*c*) (*c*) *Segments* obtuse.
- III. STAMINA, three, (*d*) or one, subulate, erect, longer than the corol.
Anthers roundish. (*e*)
- IV. PISTILLUM. *Germen* inferior. (*f*) *Style* filiform, as long as the
stamina. (*g*) *Stigma* thickish (*h*)
- V. PERICARP, a crust not opening, deciduous, crowned. (*g*)
- VI. SEED, one, oblong. (*h*)

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, articulate, fistulous, (*i*) simply branched, or dichotomous.
- II. LEAVES, opposite, (*k*) (*k*) simple, or pinnatifid, (*l*) both in the same species.
- III. FLOWERS, terminal, in corymbus. (*m*)
- IV. HABITATION, old walls, bogs, ditches, meadows, woods, and corn-fields.

Of this Genus there are four Species.

Class III. *Triandria*. Order I. *Monogynia*.

GENUS 27.

CROCUS. *Crocus*.

(From *KROKE*, G. a *thread*, because when dried it resembles that figure ; and hence the metamorphosis of the boy *Crocus*, who was in love with *Smilax*, into this flower. *Ovid*.—No English word.)

THE NATURAL CHARACTERS.

- I. CALYX. *Spathe* monophyllous. (a) (a)
- II. COROLLA. *Tube* simple, very long. (b) *Limb* sexpartite, erect. (c) *Segments* ovate-oblong, equal.
- III. STAMINA. *Filaments* three, subulate, shorter than the corol, attached to it. (d) (d) (d) *Anthers* sagittate. (e) (e) (e)
- IV. PISTILLUM. *Germen* inferior, roundish. (f) *Style* filiform, length of the tube. (g) *Stigmata* three, (h) (h) (h) convolute, (i) ends serrated. (k) (k) (k)
- V. PERICARP. *Capsule* roundish, three-lobed, (l) three-celled, (m) three-valved. (n)
- VI. SEEDS, several, round. (o)

THE SECONDARY CHARACTERS.

- I. STEM, none, root bulbous. (p)
- II. LEAVES, linear, (q) subulate, (r) vaginant, radical. (s)
- III. FLOWERS, radical, liliaceous, purple, or yellow.
- IV. HABITATION, in the open fields.

Of this Genus there are three Species.

Class III. *Triandria*. Order I. *Monogynia*.

GENUS 28.

IRIS. *Flag*.

(From IRIS, G. *the rain-bow*, because of the great variety of its colours in the different species ;—the English word is from leaves resembling *flags*.)

THE NATURAL CHARACTERS.

- I. CALYX. *Spathe* two-leaved, (a) (a) separating the flowers.
- II. COROLLA *sexpartite*. *Segments* oblong, obtuse, *three* outer ones reflexed, (b) (b) (b) *three* inner ones erect, more acute, (c) (c) (c) all united by the claws. (d)
- III. NECTARY, a longitudinal line in the claws and joints of the larger petals, (e) frequently villous.
- IV. STAMINA. *Filaments* three, subulate, inserted on the claw of the reflexed petals. (f) (f) (f) *Anthers* oblong, straight, depressed, (g) (g) (g) sheltered by the petaliform stigmata. (i)
- V. PISTILLUM. *Germen* inferior, oblong. (h) *Style* simple, very short. (h) *Stigmata* very large, petal-form, covering the stamina, (i) (i) summits bilabiate; upper lip, two-cleft, reflexed, (k) inner, less bifid, (l) keeled within from the centre.
- VI. PERICARP inferior, oblong, angular, (m) three-celled, three-valved. (n)
- VII. SEEDS, numerous, large, ovate. (p)

THE SECONDARY CHARACTERS.

- I. STEM, simple, leafy.
- II. LEAVES, ensiform, (q) alternate, amplexicaul, yellow, or of a dull lead colour.
- III. FLOWERS, liliaceous, scattered, terminal. (r)
- IV. HABITATION, in the waters ; one species in groves and thickets.

Of this Genus there are two Species.

Class III. *Triandria*. Order I. *Monogynia*.

GENUS 29.

NARDUS. *Mat-grass*.

(From the Greek, being denominated *nardos* by Theophrastus;—the English from its roots *matting* the ground.)

THE NATURAL CHARACTERS.

- I. CALYX, none.
- II. COROLLA, two-valved; outer *valve* lanceolate-linear, long, mucronate, embracing the lesser, (a) inner *valve*, less, linear, mucronate. (b)
- III. STAMINA, three, capillary, shorter than the corolla. (c) *Anthers* oblong. (d)
- IV. PISTILLUM. *Germen* oblong. (e) *Style* one, filiform, long, pubescent. (f) *Stigma* simple. (g)
- V. PERICARP, none. The *Corolla* adheres to the seed, nor opens. (h)
- VI. SEED, one, straight, linear-oblong, at both ends acuminate, narrower above. (i)

THE SECONDARY CHARACTERS.

- I. STEM, without knots, (k) small, slender, numerous. (l)
- II. LEAVES, small, narrow, three or four together, (m) subglaucous. (n)
- III. FLOWERS, spiked, (o) standing on one side of the stalk, all pointing one way.
- IV. HABITATION, dry pastures and hills.

Of this Genus there is one Species.

Class III. *Triandria*. Order I. *Monogynia*.

GENUS 30.

ERIPHORUM. *Cotton-Grass*.

(From ERION, G. *wool*, and FERO, G. to *bear*;—the English name from the down attached to the seeds resembling *cotton*.)

THE NATURAL CHARACTERS.

- I. CALYX. *Spike* imbricated on all sides; (*a*) the *scales* ovate-oblong, flat-inflexed, membranaceous, loose, acuminate, (*b*) separating the flowers.
- II. COROLLA, none.
- III. STAMINA. *Filaments* three, capillary. (*c*) *Anthers* erect, oblong. (*d*)
- IV. PISTILLUM. *Germen*, very small. (*e*) *Style* filiform, length of (in our specimen shorter than) the scales of the calyx. (*f*) *Stigmata* three, slender, reflexed. (*g*)
- V. PERICARP, none.
- VI. SEEDS, triquetous, acuminate, furnished with *villi*, (*h*) becoming longer than the spike. (*i*) (*i*)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, cylindrical. (*k*)
- II. LEAVES, grass-like, vaginant, simple, intire. (*l*)
- III. FLOWERS, terminal and woolly. (*m*)
- IV. HABITATION, in moist meadows and moors.

Of this Genus there are four Species.

Class III. *Triandria*. Order I. *Monogynia*.

GENUS 31.

SCHŒNUS. *Bog-Rush*.

(From *SCHOINOS*, G. a *rush*;—the English name from its habitation in *bogs*, and its resemblance to the *rush*.)

THE NATURAL CHARACTERS.

- I. CALYX, a common *Glume*, many-flowered, bivalved, large, erect, attenuate, persisting. (*a*) (*a*)
- II. COROLLA. *Petals* six, lanceolate, acute, converging, persisting, unequal in situation, almost imbricate, the outer ones shorter. (*b*)
- III. FILAMENTS three, capillary. (*c*) *Anthers* erect, oblong, arrow-shaped. (*d*)
- IV. GERMEN, ovato-triquetrous, obtuse. (*e*) *Style* setaceous, length of the corolla. (*f*) *Stigma* trifid, slender. (*g*)
- V. PERICARP, none. The *Corolla* loosely converging, ejecting the mature seed.
- VI. SEED, one, subovate, above thicker, obscurely three-cornered, shining. (*h*)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, cylindrical or triquetrous, leafy, or naked. (*i*)
- II. LEAVES, grassy, vaginant, subulate, simple, intire. (*k*)
- II. FLOWERS, terminal, in a spiked head. (*l*)
- IV. HABITATION, on turfy bogs.

Of this Genus there are five Species.

Class III. *Triandria*. Order I. *Monogynia*.

GENUS 32.

CYPERUS. *Cyperus*.

(From *KYPAROS*, Gr. a *round vessel*, the root being supposed to resemble such;—the English appellation the same.

THE NATURAL CHARACTERS.

- I. CALYX. *Spike* imbricated in two rows; (a) (a) with *scales* ovate-keeled, plano-inflexed, separating the flowers. (b)
- II. COROLLA none.
- III. STAMINA: *Filaments*, three, very short. (c) *Anthers* oblong, furrowed. (d)
- IV. PISTILLUM. *Germen* very small. (e) *Style* filiform, very long. (f) *Stigmata*, three, capillary. (g)
- V. PERICARP, none. *Calyx* incloses the seed. (h)
- VI. SEED, one, triquetrous, acuminate, (i) destitute of *villi*.

THE SECONDARY CHARACTERS.

- I. STEM, triquetrous, striate. (k)
- II. LEAVES, grassy, vaginant, intire. (l)
- III. FLOWERS, in spikes, the *spikelets* assembled, forming a kind of *umbel*. (m)
- IV. HABITATION, in marshes, a rare plant.

Of this Genus there is one Species.

Class III. *Triandria*. Order I. *Monogynia*.

GENUS 33.

SCIRPUS. *Club-rush*.

(From *sirpo*, L. to *bind*, mats and chair-bottoms being made from the culms of some of the species;—the English name from its resembling a *rush*, and the terminal oblong spike give it the likeness to a club.)

THE NATURAL CHARACTERS.

- I. CALYX. *Spike* on every side imbricated, (a) with *scales* ovate, plano-inflexed, (b) separating the flowers.
- II. COROLLA, none.
- III. STAMINA. *Filaments* three, getting longer. (c) *Anthers* oblong. (d)
- IV. PISTILLUM. *Germen* very small. (e) *Style* filiform, long. (f) *Stigmata* three, capillary. (g)
- V. PERICARP, none.
- VI. SEED, one, triquetrous, acuminate, furnished with *villi* shorter than the *Calyx*; (h) in some cases these *villi* are attached to the apex of the seed, in others to the base.

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, solid, round, (i) or triquetrous, naked, or leafy.
- II. LEAVES, grassy, vaginant, (k) alternate, or radical.
- III. FLOWERS, terminal or lateral, in roundish spikes. (l)
- IV. HABITATION, in ponds, marshes, bogs, and by the sea-side.

Of this Genus there are twelve Species.

Class III. *Triandria*. Order I. *Monogynia*.

GENUS 34.

PANICUM. *Panick-grass*.

(From PANE, *L. bread*; one species of this genus, *panicum miliaceum* (millet), being used for that purpose;—no peculiar English generic name.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glume* one flowered, (*a*) three-valved; (*b*) *valves* subovate; the third least, placed at the back of the other. (*c*)
- II. COROLLA, bivalved; (*d*) *valves* subovate, one smaller, flatter. (*e*)
- III. STAMINA. *Filaments* three, capillary, short. (*f*) *Anthers* oblong (two forked.) (*g*)
- IV. PISTILLUM. *Germen* roundish. (*h*) *Styles* two, capillary. (*i*) *Stigmata* feathery. (*k*)
- V. PERICARP, none. The *Corolla* adheres to the seed, nor does it open. (*l*)
- VI. SEED, one, covered, roundish, flattish on one side. (*m*)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, articulate. (*n*)
- II. LEAVES, gramineous, subulate, vaginant, entire. (*o*)
- III. FLOWERS, terminal, spiked, (*p*) or paniculate.
- IV. HABITATION, moist meadows, corn-fields, sandy grounds, the sea-shore.

Of this Genus there are five Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 35.

ALOPECURUS. *Fox-tail-grass*.

(From ALOPEX, G. a *fox*, and OURA, G. a *tail*; this grass resembling the *tail of a fox*;—the English appellation a translation of the Greek.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glume*, one-flowered, two-valved; (*a*) *valves* ovato-lanceolate, concave, compressed, equal. (*b*)
- II. COROLLA, one-valved; *valve* concave, length of the calyx. A long *arista* inserted towards the base at the back of the valve. (*c*)
- III. STAMINA. *Filaments* three, capillary. (*d*) *Anthers* both ends bifurcate. (*e*)
- IV. PISTILLUM. *Germen* roundish. (*f*) *Styles* two, cirrhous, reflexed, longer than the calyx. (*g*) *Stigmata* simple. (*h*)
- V. PERICARP, none. The *Corolla* cloathing the seed. (*i*)
- VI. SEED, one, roundish, covered. (*k*)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, articulate. (*l*)
- II. LEAVES, gramineous, subulate, vaginant, entire. (*m*)
- III. FLOWERS, terminal, spiked, (*n*) or paniculate, defended by long *villi*. (*o*)
- IV. HABITATION, meadows, road-sides, also in stagnant water, on walls, and sterile ground.

Of this Genus there are four Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 36.

PHLEUM. *Cat's-tail-grass*.

(From PHLEO, G. to *abound*, from its abounding with seeds ;—and the English name from the resemblance of the spikes to the *tail of a cat*.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glume* one-flowered, (a) two-valved, oblong, linear, compressed, opening with a bicuspid apex : (b) *valves* straight, concave, compressed, embracing, equal, truncate, mucronate at the summit of the keel.
- II. COROLLA, two-valved, (c) shorter than the calyx : outer *valve* (d) embracing the lesser inner valve.
- III. STAMINA. *Filaments* three, capillary, longer than the calyx. (e) *Anthers* oblong, bifurcated. (f)
- IV. PISTILLUM. *Germen* roundish. (g) *Styles* two, capillary, re-flexed. (h) *Stigmata* feathery. (i)
- V. PERICARP, none. *Calyx* and *Corolla* enclosing the seed. (k)
- VI. SEED, one, roundish. (l)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, articulate. (m)
- II. LEAVES, gramineous, subulate, vaginant, entire. (n)
- III. FLOWERS, terminal, closely spiked, spikelets mostly cylindrical. (o)
- IV. HABITATION, mountains, heaths, corn-fields, walls, and on the coast.

Of this Genus there are four Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 37.

PHALARIS. *Canary-grass*.

(From PHALOS, *G. white*, from the whiteness of its seeds ;—the English name from its original place of growth, the Canary Islands, this genus, although now common, not being originally a native.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glume* one-valved, two-valved, compressed, obtuse : (*a*) *valves* navicular, compressed, carinate, above more obtuse, the margins straight, parallel, converging. (*b*)
- II. COROLLA, two-valved, less than the calyx : (*c*) the outer *valve* oblong, acuminate, (*d*) convolute; the inner less.
- III. STAMINA. *Filaments* three, capillary, shorter than the calyx. (*e*) *Anthers* oblong (bifurcate.) (*f*)
- IV. PISTILLUM. *Germen* roundish. (*g*) *Styles* two, capillary. (*h*) *Stigmata* villous. (*i*)
- V. PERICARP, none. The *Corolla* adheres to the seed like an incrustation, nor opens. (*h*)
- VI. SEEDS, one, covered, rough, from a round becomes at both ends acuminate. (*i*)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, leafy, articulate. (*k*)
- II. LEAVES, gramineous, subulate, entire. (*l*)
- III. FLOWERS, terminal, loosely spiked, (*m*) sometimes paniculate.
- IV. HABITATION, road-sides, heaths, sandy shores.

Of this Genus there are three Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 38.

MILIUM. *Millet-grass*.

(From MILLE, L. a *thousand*, on account of the multitude of its seeds ;
—no different English generic name.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glume*, one-flowered, two-valved: (*a*) *valves* ovate, acuminate. (*b*)
- II. COROLLA, two-valved, less than the calyx: *valves* ovate, one of these the least. (*c*)
- III. STAMINA. *Filaments* three, capillary, very short. (*d*) *Anthers* bifurcate.
- IV. PISTILLUM. *Germen* roundish. (*e*) *Styles* two, capillary. (*f*) *Stigmata* pencilform. (*g*)
- V. PERICARP. *Seed* covered by the corolla, (*h*) very smooth.
- VI. SEED, one, covered, roundish. (*i*)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, (*k*) articulate.
- II. LEAVES, gramineous, subulate, vaginant, entire. (*l*)
- III. FLOWERS, terminal, paniculate. (*m*)
- IV. HABITATION, in moist shady grounds, corn-fields, open ground, especially where water has been stagnant.

Of this Genus there are two Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 39.

DACTYLIS. *Cock's-foot-Grass*.

(From *DAKTULOS*, *G. the finger*, the spikes, usually four, having such appearance ;—the English name from the spikes resembling the *foot of the cock*.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glumes* two, (*a*) compressed, keeled, acute : (*b*) one valve shorter than the floret ; (*c*) the other longer.*
- II. COROLLA. *Glumes*, compressed, oblong, acute : one valve within the larger valve of the calyx, keeled. (*c*)
- III. STAMINA. *Filaments* three, capillary, length of the corolla. *Anthers* two-forked. (*d*)
- IV. PISTILLUM. *Germen* top-shaped. (*e*) *Styles* two, capillary, spreading, villous. (*f*) *Stigma* simple. (*g*)
- V. PERICARP, none, the *Corolla* enclosing the seed, afterwards rejecting the same. (*h*)
- VI. SEED, one, on this side depressed, on the other convex, naked. (*i*)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, articulate. (*k*)
- II. LEAVES, grassy, subulate, vaginant, simple, entire. (*l*)
- III. FLOWERS, thick-panicked, terminal. (*m*)
- IV. HABITATION, sea-coast, meadows, and shady places.

Of this Genus there are two Species.

* In some species the calyx is one-flowered, two-flowered, and in others many-flowered.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 40.

STIPA. *Feather-grass*.

{From *STIPO*, L. to *bind*, the *roots forming turf*;—the English name from the long *feathery awn* belonging to this tribe.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glume* one-flowered, two-valved, loose, acuminate. (*a*) (*a*)
- II. COROLLA, two-valved. The exterior *valve* terminated at the apex by a long *arista*, twisted, jointed at the base, straight; (*b*) the interior *valve*, the length of the exterior, awnless, linear. (*c*)
- III. STAMINA. *Filaments* three, capillary. *Anthers* linear. (*d*)
- IV. PISTILLUM. *Germen* oblong. (*e*) *Styles* two, hirsute, united at the base. (*f*) *Stigmata* pubescent. (*g*)
- V. PERICARP. *Glume* adhering to the seed. (*h*)
- VI. SEED, oblong, covered. (*i*)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, but without knots. (*k*)
- II. LEAVES, numerous, capillary, (*l*) vaginant, entire. (*m*)
- III. FLOWERS, few, paniculate, terminal. (*n*)
- IV. HABITATION, on lime-stone rocks.

Of this Genus there is one Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 41.

LAGURUS. *Hare's-tail-grass*.

(From LAGOS, G. a *hare*, and OURA, G. a *tail*, from the spike resembling the tail of this animal;—no other English name.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glume*, one-flowered, (*a*) two-valved. *Valves* long, linear, patulous, very slender, both ending in pennated villi. (*b*)
- II. COROLLA. *Glume* two-valved, thicker than the calyx: The exterior *valve* longest, terminated by two *aristæ*, small, straight; (*c*) a third *arista* from the middle of the back of the same valve, reflexed, twisted, (*d*) the interior valve small, acuminate. (*e*)
- III. STAMINA. *Filaments* three, capillary. (*f*) *Anthers* bifurcate. (*g*)
- IV. PISTILLUM. *Germen* top-shape. (*h*) *Styles* two, setaceous, villosus. (*i*) *Stigmata* simple. (*k*)
- V. PERICARP, none. The *Corolla* adheres to the seed. (*l*)
- VI. SEED, one, oblong, covered, awned. (*m*)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, articulate.
- II. LEAVES, vaginant, simple, entire, pubescent. (*o*)
- III. FLOWERS, spike assembled, oval-oblong, nodding, whitish, soft to the touch. (*p*)
- IV. HABITATION, sandy plains.

Of this Genus there is one Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 42.

AIRA. *Hair-grass*.

(From *AIRO*, to *extirpate*, being the Darnel-grass of the Ancients, a most *pernicious weed*, the seeds of which produce delirium ;—the English name from the fine *hairs* with which the leaves of some of the species are invested.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glume* two-flowered, (a) two valved ; *valves* ovato-lanceolate, acute, equal. (b)
- II. COROLLA, two-valved : *valves* like the calyx. (c)
- III. STAMINA. *Filaments* three, capillary, length of the flower. *Anthers*, oblong, forked at both ends. (d)
- IV. PISTILLUM. *Germen* ovate. (e) *Styles* two, setaceous, patent. (f) *Stigmata* pubescent. (g)
- V. PERICARP, none. The *Corolla* enclosing and adhering to the seed. (h)
- VI. SEED, subovate, covered. (i)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, articulate. (k)
- II. LEAVES, gramineous, vaginant, subulate, entire. (l)
- III. FLOWERS, paniculate, (m) or spiked, terminal.
- IV. HABITATION, sterile pastures, walls, and stagnant waters.

Of this Genus there are seven Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 43.

ELYMUS, *Lyme-grass*.

(From *PILEO*, *G.* to *involve*, the Glumes representing, from their union, a kind of *involucrum* or *sheath*;—the English name from the scientific generic name.)

THE NATURAL CHARACTERS.

- I. CALYX. A common *receptacle*, elongated into a spike. (*a*) (*a*) *Glume* four-leaved, (*b*) distichous; two *leaflets* placed under each *spikelet*, subulate. (*c*)
- II. COROLLA, two-valved: the exterior *valve* larger, acuminate, awned; (*d*) the interior *valve* flat. (*e*)
- III. STAMINA. *Filaments* three, capillary, very short. *Anthers* oblong, bifid at the base. (*f*)
- IV. PISTILLUM. *Germen* top-shaped. *Styles* two, diverging, hairy, inflexed. *Stigmata* simple. (*g*)
- V. PERICARP. *Corolla* enclosing the seed. (*h*) (*h*)
- VI. SEED, one, linear, on one side convex, covered. (*i*)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, articulate.
- II. LEAVES, gramineous, subulate, vaginant entire.
- III. FLOWERS, in spikes. (*k*)
- IV. HABITATION, the sea-coast.

Of this Genus there are three Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 44.

MELICA. *Melic-grass*.

(The Latin name from Theophrastus ;—no different English generic name.)

THE NATURAL CHARACTERS.

- I. CALYX *Glume*, two-flowered, (a) two-valved. *Valves* ovate, concave, equal. (b)
- II. COROLLA, two-valved ; *valves* ovate, awnless : one concave, (c) the other flat. (d) A small *body* among the florets. (e)
- III. STAMINA. *Filaments* three, capillary, the length of the flower. *Anthers* bifurcate. (f)
- IV. PISTILLUM. *Germen* ovato-turbinate. *Styles* two, setaceous, patent. *Stigmata* oblong, villous. (g)
- V. PERICARP, none. The *Corolla* encloses the seed, which it drops. (h)
- VI. SEED, one. (i)

THE SECONDARY CHARACTERS.

- I. STEM, *culm*, articulate. (k)
- II. LEAVES, gramineous, vaginant, subulate, entire. (l)
- III. FLOWERS, paniculate. (m)
- IV. HABITATION, woods, mountains, sterile inundated parts.

Of this Genus there are three Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 45.

BRIZA. *Quaking-grass*.

(From *BRIZE*, *heavy*, the flour from its seeds making the bread heavy;—the English name from the looseness of its panicle, quaking with the smallest breath of air.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glume* many-flowered, two-valved, patent, collecting the flowers in a cordate *spike*, distichous: (*a*) *valves* cordate, concave, equal, obtuse. (*b*)
- II. COROLLA, two-valved, the *inferior valve* the size and figure of the calyx. (*c*) The *superior* the least, flat, roundish, enclosing the body of the other. (*d*)
- III. STAMINA. *Filaments* three, capillary. *Anthers* oblong (bifurcate). (*e*)
- IV. PISTILLUM. *Germen* roundish. *Styles* two, capillary, recurved. *Stigmata* feathery. (*f*)
- V. PERICARP. *Corolla*, unchanged, contains the seed, gapes and discharges it. (*g*)
- VI. SEED, one, roundish, compressed, very small. (*h*)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, articulate. (*k*)
- II. LEAVES, gramineous, vaginant, subulate, entire.
- III. FLOWERS, terminal, in loose panicles. (*l*)
- IV. HABITATION, in fields and meadows, frequent.

Of this Genus there are two Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 46.

POA. *Meadow-grass*.

(From POA, G. AN *herb*, a name used by Theophrastus;—the English from this grass abounding in every *meadow*.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glume* many-flowered, two-valved, awnless, collecting the flowers into a distichous ovate-oblong spike. (*a*) *Valves* ovate, acuminate. (*b*)
- II. COROLLA, two-valved; *valves* ovate, acuminate, concave, compressed, rather longer than the calyx, somewhat scarious in the margin. (*c*)
- III. STAMINA. *Filaments* three, capillary. *Anthers* bifurcate. (*d*)
- IV. PISTILLUM. *Germen* roundish. *Styles* two, reflexed, villous. *Stigmata* the same. (*e*)
- V. PERICARP. The Corolla adheres to the seed, nor opens. (*f*)
- VI. SEED, one, oblong, acuminate at both ends, compressed, covered. (*g*)

THE SECONDARY CHARACTERS.

- I. STEM, culm, articulate. (*h*)
- II. LEAVES, gramineous, subulate, vaginant, entire. (*i*)
- III. FLOWERS, terminal, paniculate. (*k*)
- IV. HABITATION, all situations.

Of this Genus there are sixteen Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 47.

BROMUS. *Brome-grass*.

(From *BROSKO*, G. *to eat*, the seeds being used as *food*;—the English name the same, with the addition of the word *grass*.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glume* many-flowered, two-valved, patent, collecting the floscules into a spike: (a) *Valves* ovato-oblong, acuminate, awnless; the inferior less. (b)
- II. COROLLA, two-valved: the inferior *valve* larger, the size and figure of the calyx, concave, obtuse, bifid; projecting a straight *arista* below the apex; (c) the superior *valve* lanceolate, small, awnless. (d)
- III. STAMINA. *Filaments* three, capillary, shorter than the corolla. *Anthers* oblong, (bifurcate). (e)
- IV. PISTILLUM. *Germen* top-shape. *Styles* two, short, reflexed, villous. *Stigmata* simple. (f)
- V. PERICARP. *Corolla* very closely shut, adhering, nor open. (g)
- VI. SEED, one, oblong, covered, on this side convex, on the other furrowed. (h)

THE SECONDARY CHARACTERS.

- I. STEM, culm, articulate.
- II. LEAVES, gramineous, vaginant, subulate, entire.
- III. FLOWERS, spiked, (i) or paniculate.
- IV. HABITATION, corn-fields, walls, meadows, pastures, sandy and chalky soils, woods, under hedges.

Of this Genus there are twelve Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 48.

AVENA. *Oat-grass*.

(From AVEO, L. *to covet*, because cattle are especially fond of the oat ; —the English name expressing *corn*, and as resembling in its growth *grass*.)

THE NATURAL CHARACTERS.

- I. CALYX. A *Glume*, often many-flowered, two-valved, loosely collecting the flowers ; (a) *valves* lanceolate, acute, ventricose, loose, large, awnless. (b)
- II. COROLLA, two-valved ; the inferior *valve* harder than the calyx, size of the calyx, somewhat cylindrical, ventricose, pointed at both ends, projecting from its back an *arista*, spirally twisted, (c) reflexed, as if with a joint. (d)
- III. STAMINA. *Filaments* three, capillary. *Anthers* oblong, (bifurcate). (e)
- IV. PISTILLUM. *Germen* obtuse. *Styles* two, reflexed, hairy. *Stigmata* simple. (f)
- V. PERICARP, none. The *Corolla* closely shut, adheres, nor gapes. (g)
- VI. SEED, one, slender-oblong, at both ends acuminate, marked longitudinally with a furrow. (h)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, articulate.
- II. LEAVES, gramineous, vaginant, subulate, entire.
- III. FLOWERS, spiked, or paniculate, (i) terminal.
- IV. HABITATION, corn-fields, walls, meadows, pastures, chalky grounds, hedge-side.

Of this Genus there are four Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 49.

ARUNDO. *Reed*.

(From *ARESCO*, L. *to grow dry*, from the culm shrivelling and *drying up*;—the word *Reed* is Saxon.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glume* one, (*a*) or many-valved, two-valved, (*b*) erect; *valves* oblong, acuminate, awnless; one shorter. (*c*)
- II. COROLLA, two-valved; *valves* the length of the calyx, oblong, pointed, from whose base there arises a *down* nearly the length of the flower. (*d*)
- III. STAMINA. *Filaments*, three, capillary. *Anthers* at both ends bifurcate. (*e*)
- IV. PISTILLUM. *Germen*, oblong. *Styles*, two, capillary, reflexed, villous. *Stigmata*, simple. (*f*)
- V. PERICARP. The *Corolla* adheres to the seed, nor opens. (*g*)
- VI. SEED, one, oblong, pointed at both ends, furnished at the base with a long *pappus*. (*h*)

THE SECONDARY CHARACTERS.

- I. STEM, *culm*, articulate, fistulous.
- II. LEAVES, gramineous, vaginant, subulate, entire. (*i*)
- III. FLOWERS, terminal, paniculate. (*k*)
- IV. HABITATION, stagnant marshes, banks of rivers, moist woods, salt marshes, sea-shore.

Of this Genus there are five Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 50.

FESTUCA. *Fescue-grass*.

(From *FESTUCA*, *the shoot of a tree*, or *straw of grass*;—*fescue*, in English means a *stiff straw*, such as is used to point out the letters to children, and is a species of anagram from the Latin.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glume* many-flowered, two-valved, erect, containing the *floscules* in a slender spike: (*a*) *valves* subulate, acuminate; (*b*) the inferior less. (*c*)
- II. COROLLA, two-valved: *inferior valve* larger, the shape of the calyx, surpassing the calyx in size, nearly cylindrical, acuminate, terminating in a sharp point. (*d*)
- III. STAMINA. *Filaments* three, capillary, shorter than the corolla. *Anthers* oblong. (*e*)
- IV. PISTILLUM. *Germen* top-shape. *Styles* two, short, reflexed. *Stigmata* simple (feathery). (*f*)
- V. PERICARP. The *Corolla* closely shut, adhering, nor opens. (*g*)
- VI. SEED, one, slender, oblong, at both ends most acute, marked longitudinally with a furrow. (*h*)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, articulate.
- II. LEAVES, gramineous, subulate, vaginant, entire.
- III. FLOWERS, terminal, paniculate. (*i*)
- IV. HABITATION, various.

Of this Genus there are twelve Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 51.

LOLIUM. *Darnel*.

(From LAION, *G. corn*, and OLOON, *G. injury*, the seeds of which mixed in the bread, or fermented in ale, produce head-ach, vertigo, lethargy, and even blindness for several hours;—the English name an old Saxon word.)

THE NATURAL CHARACTERS.

- I. CALYX. A *Common receptacle* elongated into a spike, pressing to the angle of the culm, the flowers spiked in two rows. (a)(a)(a)
- II. COROLLA, two-valved, *inferior valves* narrow-lanceolate, convolute, acuminate, length of the calyx; *superior valve* shorter, linear, more obtuse, above concave. (b)
- III. STAMINA. *Filaments* three, capillary, shorter than the corolla. *Anthers* oblong (bifurcate). (c)
- IV. PISTILLUM. *Germen* top-shape. *Styles* two, capillary, reflexed. *Stigmata* plumous. (d)
- V. PERICARP, none. *Corolla* cherishes the seeds, gapes, ejects. (e)
- VI. SEED, one, oblong, on this side convex, on the other sulcate-plane, compressed. (f)

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, articulate.
- II. LEAVES, gramineous, subulate, entire.
- III. FLOWERS, terminal, spiked. (a)
- IV. HABITATION, in corn-fields, meadows.

Of this Genus there are three Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 52.

ROTTBOLLIA. *Sea Hard-grass*.

(In honour of a Danish Botanist, ROTTBOEL ;—the English name from its growing near the *sea*, and the Rachis being upright and *stiff*.)

THE NATURAL CHARACTERS.

- I. CALYX. *Glumes* two, one-flowered, lanceolate, acute, awnless, smooth, striated, parallel.
- II. COROLLA. *Glumes* two, membranaceous, awnless, nearly equal.
- III. STAMINA: *Filaments* three, capillary. *Anthers* oblong, bifid at both ends.
- IV. PISTILLUM. *Germen* oblong. *Styles* two, filiform. *Stigmata* oblong, feathery, spreading.
- V. PERICARP, none. The sinuses of the joints of the spike closed by the calyx glumes, contain the seed, till the rachis separates at the joints.
- VI. SEEDS, single, oblong.

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, articulate.
- II. LEAVES, linear, acute, entire.
- III. FLOWERS, terminal, in spikes.
- IV. HABITATION, sea-side.

Of this Genus there is one Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 53.

HORDEUM. *Barley*.

(AB HORRORE ARISTÆ, L. from the *horror* of its awn or beard ;—the English name is derived by Junius from the Hebrew.)

THE NATURAL CHARACTERS.

- I. CALYX. The *common receptacle* elongated into a spike. (a) *Glume* six-leaved, three-flowered: *flowers* sessile: *leaflets* distant, placed in pairs, linear, acuminate. (b)
- II. COROLLA, two-valved: *inferior valve* ventricose, angular, ovate-acuminate, longer than the *calyx*, ending in a long *arista*: (c) *interior valve* lanceolate, flat, less. (d)
- III. STAMINA. *Filaments* three, capillary, shorter than the corolla. *Anthers* oblong. (e)
- IV. PISTILLUM. *Germen* ovate-top-shaped. *Styles* two, villous, reflexed. *Stigmata* the same. (f)
- V. PERICARP. *Corolla* grows round the seed, nor gapes.
- VI. SEED, oblong, ventricose, angular, at both ends pointed, on one side marked with a longitudinal furrow. (g)

THE SECONDARY CHARACTERS.

- I. STEM, *culm*, articulate.
- II. LEAVES, gramineous, subulate, entire. (h)
- III. FLOWERS, terminal, spiked. (i)
- IV. HABITATION, road-sides, meadows, pastures, the sea-side.

Of this Genus there are three Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 54.

CYNOSURUS. *Dog's-tail-grass*.

(From *KUNOS*, G. *a dog*, and *OURON*, G. *a tail*;—the English name the same.)

THE NATURAL CHARACTERS.

- I. CALYX. *Partial involucre* lateral, often three-leaved, large. (*a*)
Glume many-flowered, (*b*) two-valved; valves linear, acuminate, equal. (*c*)
- II. COROLLA, two-valved; outer concave, longer; inner flat, awnless. (*d*)
- III. STAMINA. *Filaments* three, capillary. *Anthers* oblong. (*e*)
- IV. PISTILLUM. *Germen* top-shaped. *Styles* two, villous, reflexed. *Stigmata* simple. (*f*)
- V. PERICARP, none. The *Corolla* closely investing the seed, nor opens. (*g*)
- VI. SEEDS, one, oblong, pointed at both ends. (*h*)

THE SECONDARY CHARACTERS.

- I. STEM, *culm*, articulate.
- II. LEAVES, gramineous, vaginant, subulate, entire.
- IV. HABITATION, dry pastures, sandy soil.

Of this Genus there are two Species.

Class III. *Triandria*. Order II. *Digynia*.

GENUS 55.

TRITICUM. *Wheat-grass*.

(From *TERO*, L. *to thrash*;—the English name is old Saxon.)

THE NATURAL CHARACTERS.

- I. CALYX. A *common receptacle* elongated into a spike. *Glume* two-valved, many-flowered : (a) *valves* ovate, rather obtuse, concave. (b)
- II. COROLLA, two-valved, nearly equal, the size of the calyx, the *exterior valve* ventricose, obtuse with a point : (c) the *interior valve* flat. (d)
- III. STAMINA. *Filaments* three, capillary. *Anthers* oblong, bifurcate. (e)
- IV. PISTILLUM. *Germen* top-shaped. *Styles* two, capillary, reflexed. *Stigmata* feathery. (f)
- V. PERICARP, none. *Corolla* cherishes the seed, (g) opens and emits. (h)
- VI. SEED, one, ovato-oblong, at both ends obtuse, on this side convex, on the other furrowed. (i)

THE SECONDARY CHARACTERS.

- I. STEM, culm, articulate.
- II. LEAVES, gramineous, vaginant, subulate, entire.
- III. FLOWERS, terminal, spiked. (k)
- IV. HABITATION, sea-side, in cultivated land, woods.

Of this Genus there are four Species.

Class III. Triandria. Order III. Trigynia.

GENUS 56.

MONTIA. *Water-chick-weed.*

(Named after Dr. MONTI, professor of Botany in the university of Bologna, author of several Botanical works ;—the English name from growing near the *water*, and resembling *chick-weed*.)

THE NATURAL CHARACTERS.

- I. CALYX. *Perianth* two-leaved ; *leaflets* ovate, concave, obtuse, erect, persisting. (a)
- II. COROLLA, one-petalled, five-parted : (b) the three alternate laciniae less, stamen-bearing. (c) (c) (c)
- III. STAMINA. *Filaments* three, capillary, nearly length of the corolla, into which it is inserted. *Anthers* small.
- IV. PISTILLUM. *Germen* top-shaped. *Styles* three, villous, patent. *Stigmata* simple. (d)
- V. PERICARP. *Capsule* top-shaped, obtuse, covered, one-celled, (e) three-valved. (f)
- VI. SEEDS, three, roundish. (g)

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, branchy, radicant. (h)
- II. LEAVES, opposite, sessile, entire. (i)
- III. FLOWERS, axillary, peduncled, aggregate. (k)
- IV. HABITATUM, springs, and in moist meadows.

Of this Genus there is one Species.

Class III. *Triandria*. Order III. *Trigynia*.

GENUS 57.

POLYCARPON. *All-seed*.

(From *POLUS*, Gr. *much*, and *KARPOS*, G. *fruit*, from its abounding in seeds;—the English name from the same circumstance.)

THE NATURAL CHARACTERS.

- I. CALYX. *Perianth* five-leaved: *leaflets* ovate, persisting. (*a*)
- II. COROLLA. *Petals* five, emarginate, obtuse, equal. (*b*)
- III. STAMINA. *Filaments* three, filiform, shorter than the corolla. *Anthers* roundish. (*c*)
- IV. PISTILLUM. *Germen* roundish. *Styles* three, filiform. *Stigmata* rather obtuse. (*d*)
- V. CAPSULE, ovate, one-celled, (*e*) at the apex three-valved. (*f*)
- VI. SEEDS, many, roundish. (*g*)

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, branchy. (*h*)
- II. LEAVES, verticillate, sessile, entire. (*i*)
- III. FLOWERS, terminal, paniculate, dichotomous. (*k*)
- IV. HABITATION, on the coast.

Of this Genus there is one Species.

Class III. *Triandria*. Order III. *Trigynia*.

GENUS 58.

HOLOSTEUM. *Mouse-Ear*.

(From *olos*, G. *the whole*, and *osteon*, G. *a bone*—from its supposed virtue as restoring *broken* bones;—the English name from the leaves resembling the *ear of a mouse*.)

THE NATURAL CHARACTERS.

- I. CALYX. *Perianth* five-leaved: leaflets ovate, persisting. (*a*)
- II. COROLLA. *Petals* five, emarginate, obtuse, equal. (*b*)
- III. STAMINA. *Filaments* three, filiform, shorter than the corolla. *Anthers* roundish. (*c*)
- IV. PISTILLUM. *Germen* roundish. *Styles* three, filiform. *Stigmata* rather obtuse. (*d*)
- V. PERICARP. The *Capsule* ovate, one-celled, (*e*) at the apex three-valved. (*f*)
- VI. SEEDS, many, roundish. (*g*)

THE SECONDARY CHARACTERS.

- I. STEM, branchy at the base, towards the apex hirsute or viscid.
- II. LEAVES, ovate, acute, opposite. (*h*)
- III. FLOWERS, umbelliferous, simple, terminal, (*i*) peduncles bracteated. (*k*)
- IV. HABITATION, on walls.

Of this Genus there is one Species.

Class III. *Triandria*. Order IV. *Monæcia*.

GENUS 59.

BRYONIA. *Bryony*.

(From BRUO, *G. to abound*, from its numerous leaves ;—no English generic name.)

THE NATURAL CHARACTERS.

MALE FLOWERS.

- I. CALYX. *Perianth* one-leaf, campanulate, five-toothed, teeth subulate. (*a*) (*a*)
- II. COROLLA, five-parted, campanulate, adhering to the Calyx ; the laciniae ovate. (*b*)
- III. STAMINA. *Filaments* three, very short. *Anthers* five, of which two are connate upon one filament, (*c*) (*c*) a single one on the third filament. (*d*)

FEMALE FLOWERS.

- I. CALYX. *Perianth* as in the male, deciduous,
- II. COROLLA, as in the male.
- III. PISTILLUM. Germen beneath. Style trifid, length of the corolla, patent. *Stigmata* emarginate, spreading. (*e*)
- IV. PERICARP. *Berry*, oval, smooth. (*f*)
- V. SEEDS, some, adhering to the bark, subovate. (*g*)

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, climbing, having claspers. (*h*),
- II. LEAVES, alternate, petiolate, (*i*) multifold. (*k*)
- III. FLOWERS, axillary, pedunculate, (*l*) peduncles many-flowered. (*m*)
- IV. HABITATION, hedges, common.

Of this Genus there is one Species.

Class III. *Triandria*. Order IV. *Monæcia*.

GENUS 60.

AMARANTHUS. *Amaranth*.

(From A, G. *not*, and MARINO *to decay*, from the *permanency* of its *flowers*;—no other English generic name.)

THE NATURAL CHARACTERS.

I. MALE FLOWERS. (A) (A)

I. CALYX. *Perianth* three or five leaves, erect, coloured, persisting : *leaflets*, lanceolate, acute. (b)

I. COROLLA, none, unless you assume for such the calyx.

III. STAMINA. *Filaments*, three or five, capillary, erecto-patulous, length of the calyx. *Anthers* oblong, vibrating. (c)

II. FEMALE FLOWERS. (D) (D)

I. CALYX. *Perianth* altogether as in the male. (e)

II. COROLLA, none.

III. PISTILLUM. *Germen* ovate. *Styles* three, short, subulate. *Stigmata* simple, persisting. (f)

IV. PERICARP. *Capsule*, ovate, somewhat compressed, coloured like the calyx, upon which it rests, and of its size, three-beaked, (g) one-celled, cut round.

V. SEED, one, round, compressed, large. (h)

THE SECONDARY CHARACTERS.

I. STEM, herbaceous, striated, ramous, procumbent.

II. LEAVES, alternate, petiolate, simple, entire.

III. FLOWERS, terminal, or axillary, glomerate, or racemous, sessile, or pedunculate.

IV. HABITATION, in cultivated meadows, not common.

Of this Genus there is one Species.

Class III. *Triandria*. Order IV. *Monœcia*.

GENUS 61.

SPARGANIUM. *Bur-reed*.

(From SPARGANON, G. a *wreath*, its leaves being formerly used for that purpose ;—the English name from its flowers when in a seed *adhering*, and as being a *reed*.)

THE NATURAL CHARACTERS.

MALE FLOWER. (A)

I. CALYX. The common *ament* roundish, thickly imbricated on every side, permanent. The *Proper Perianth* three-leaved, linear, deciduous. (*b*)

II. COROLLA, none.

III. STAMINA. *Filaments* three, capillary, length of the calyx. *Others* oblong. (*c*)

FEMALE FLOWERS. (D)

I. CALYX, as in the male. A common *receptacle*, roundish. *Proper Perianth* nearly the same. (*e*)

II. COROLLA, none.

III. PISTILLUM. *Germen* ovate, ending in a short style, subulate. *Stigmata* two, acute, persisting. (*f*)

IV. PERICARP. A *Drupe* dry, top-shaped, with a point, beneath angular. (*g*)

V. SEED, *Nuts* two, bony, oblong-ovate, angular. (*h*)

THE SECONDARY CHARACTERS.

I. STEM, a culm, smooth, branchy. (*i*)

II. LEAVES, alternate, vaginant, entire. (*k*)

III. FLOWERS, terminal, spiked, spikes solitary, mostly alternate. Flowers above, female ; below, sessile, (*l*) or pedunculated, male.

IV. HABITATION, ditches, and the banks of rivers.

Of this Genus there are three Species.

Class III. *Triandria*. Order IV. *Monœcia*.

GENUS 62.

TYPHA. *Cat's-tail*.

(From TIPHOS, G. a lake, being an inhabitant of the waters ;—the English name from its *ament* resembling somewhat a *cat's tail*.)

THE NATURAL CHARACTERS.

MALE FLOWERS. (A)

- I. CALYX. A common *Ament* cylindrical, (b) crowded, consisting of *Perianths proper*, three-leaved, setaceous. (c)
- II. COROLLA, none.
- III. STAMINA. *Filaments* three, capillary, length of the calyx. *Anthers* oblong, pendulous. (c)

FEMALE FLOWERS. (D)

- I. CALYX. Hairs, pappous. (e)
- II. COROLLA, none.
- III. STAMINA. *Germen* beset with setæ, ovate. *Styles* subulate. *Stigma* capillary, persisting. (f)
- IV. PERICARP, none. *Fruit* numerous, constituting a cylinder. (g)
- V. SEED, one, ovate, furnished with a style, beset with setæ. *Pappus* capillary, as is affixed to the seed bearing setæ, length of the Pistillum. (h)

THE SECONDARY CHARACTERS.

- I. STEM, *culm*, horizontal, knotty, stoloniferous.
- II. LEAVES, alternate, vaginant, entire.
- III. FLOWERS, terminal, club-spiked, spikes twin, alternate:
- IV. HABITATION, in ponds and marshes.

Of this Genus there are three Species.

Class III. *Triandria*. Order IV. *Monœcia*.

GENUS 63.

CAREX. *Sedge*.

(From KEIRO, G. to *abrade*, from its *roughness*;—the word *sedge* is *Saxon*.)

THE NATURAL CHARACTERS.

MALE FLOWERS. (A)

- I. CALYX. An *ament* oblong, imbricated, composed of *scales*, (*b*) one-flowered, lanceolate, acute, concave, persisting.
- II. COROLLA, none.
- III. STAMINA. *Filaments* three, setaceous, erect, longer than the calyx. *Anthers* erect, long, linear. (*c*)

FEMALE FLOWERS. (D)

- I. CALYX. An *ament* as with the males.
- II. COROLLA. *Petals* none.
Nectary inflated, ovato-oblong, at the apex bidentate, above contracted, gaping at the mouth, persisting. (*e*)
- III. PISTILLUM. *Germen* triquetrous, within the *Nectary*. *Styles* very short. *Stigmata* three or two, subulate, incurved, long, acuminate, pubescent. (*f*)
- IV. PERICARP, none. *Nectary* enlarged, cherishing the seed. (*g*)
- V. SEED, one, ovato-acute, triquetrous, one angle often the least. (*h*)

THE SECONDARY CHARACTERS.

- I. STEM, *culm*, round or triquetrous. (*i*)
- II. LEAVES, alternate, (*k*) (*k*) vaginant, entire.
- III. FLOWERS, terminal, spiked, sessile, or pedunculated.
- IV. HABITATION, marshes, sea-coast, woods, moist meadows, tops of mountains.

Of this Genus there are fifty-two Species.

Class III. *Triandria*. Order V. *Diæcia*.

GENUS 64.

EMPETRUM. *Crake-berries*.

(From EN, G. *upon*, and PETROS, G. *a rock*, because it grows upon rocks ;—and the English name from *crag*, a rock, and as producing a *berry*.)

THE NATURAL CHARACTERS.

MALE FLOWER. (A)

- I. CALYX. *Perianth* tripartite : laciniae ovate, persisting. (*b*)
- II. COROLLA. *Petals* three, ovato-oblong, narrower at the base, larger than the calyx, withering. (*c*)
- III. STAMINA. *Filaments* three, capillary, very long, projecting. *Anthers* erect, short, bipartite. (*d*)

FEMALE FLOWER. (E)

- I. CALYX. *Perianth* as in the male.
- II. COROLLA. *Petals* as in the male.
- III. PISTILLUM. *Germen* depressed, *Style* scarcely any. *Stigmata* nine, reflexo-patent. (*f*)
- IV. PERICARP. *Berry* orbicular, depressed, (*g*) unilocular, (*h*) (*h*) larger than the calyx.
- V. SEEDS, nine, placed jointward in a circle, on this side gibbous, on the other angular. (*i*)

THE SECONDARY CHARACTERS.

- I. STEM, branchy, branches erect, leafy, red. (*k*)
- II. LEAVES, partially imbricate, often verticillate, revolute. (*l*)
- III. FLOWERS, axillary, solitary, subsessile, flesh-coloured.
- IV. HABITATION, on the crags of lofty mountains.

Of this Genus there is one Species.

Class III. *Triandria*. Order VI. *Polygamia*.

GENUS 65.

HOLCUS. *Soft-grass*.

(From the *olkos*, *G. a furrow*, being cultivated ;—and the English name because of the great *woolliness* of one of the species.)

THE NATURAL CHARACTERS.

BISSEXUAL FLOWER. (A)

- I. CALYX. *Glume* mostly two-flowered, bivalved, rigid, awnless : *exterior valve* ovate, concave, large, embracing the interior, oblong, convoluted at the sides. (*b*)
- II. COROLLA. *Glume* bivalved, tender, villous, less than the calyx : *exterior valve* often with an arista, rigid, longer than the calyx : but with the *interior* awnless, least. (*c*) (*c*)
- III. STAMINA. *Filaments* three, capillary. *Anthers* oblong. (*d*)
- IV. PISTILLUM. *Germen* top-shaped. *Styles* two, capillary. *Stigmata* pencilform. (*e*)
- V. PERICARP, none. *Corolla* involves, covers, adheres to the seed. (*f*)
- VI. SEED, one, ovate, covered. (*g*)

UNISEXUAL, A MALE, FLOWER. (H)

- I. CALYX. *Glume* bivalved : *valves* ovato-lanceolate, convolute, awnless, acute. (*i*)
- II. COROLLA, none, unless you call such the calyx.
- III. STAMINA. *Filaments* three, capillary. *Anthers* oblong. (*k*)

THE SECONDARY CHARACTERS.

- I. STEM, *culm*, articulate.
- II. LEAVES, gramineous, alternate, vaginant, entire. (*l*)
- III. FLOWERS, terminal, paniculate (*m*)
- IV. HABITATION, meadows, side of hedges.

Of this Genus there are three Species.

Class III. *Triandria*. Order VI. *Polygamia*.

GENUS 66.

ÆGILOPS.*

(From AIGOS, G. of a goat, OPS, G. face, from its roughness ;—no English generic name.)

THE NATURAL CHARACTERS.

BISSEXUAL FLOWERS. (A)

- I. CALYX. *Glume* bivalved, three-flowered, very large : valves ovate, truncate, striate, awns various. (b)
- II. COROLLA. *Glume* bivalved, *exterior valve* ovate, terminated by a double or triple arista. (c) *Interior valve* lanceolate, erect, awnless, inflexed longitudinally at the margin. (d)
- III. STAMINA. *Filaments* three, capillary. *Anthers* oblong. (e)
- IV. PISTILLUM. *Germen* top-shaped. *Styles* two, reflexed. *Stigmata* pilose. (f)
- V. PERICARP NONE. *Inner valve* of the *Corolla* adheres to the seed, nor opens. (g)
- VI. SEED, oblong. (h)

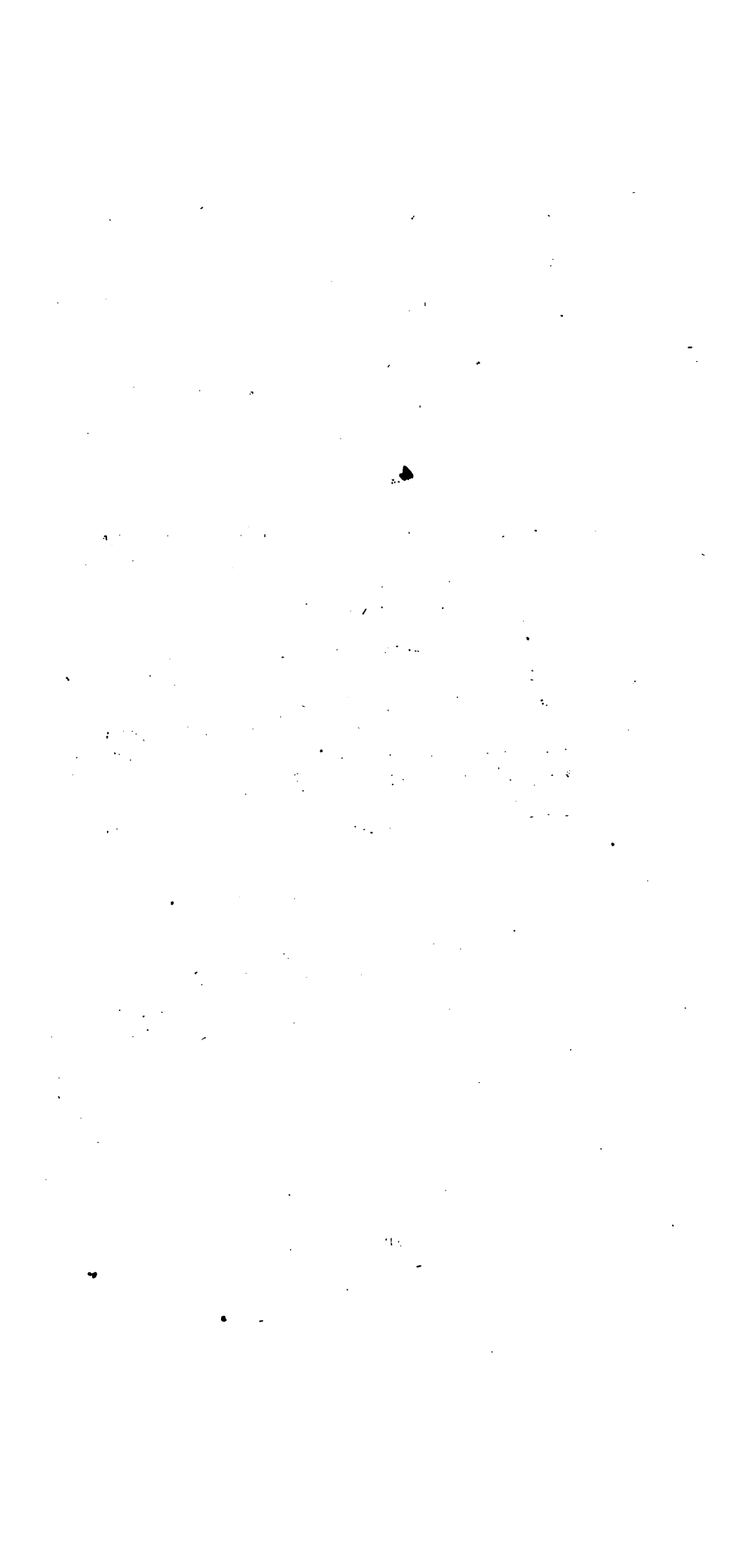
MALE FLOSCULE. (I) (I)

- I. CALYX.—II. COROLLA.—III. STAMINA.—IV. PISTILLUM, as in the bisexual flower ; but the *pistillum* is almost ever abortive.

THE SECONDARY CHARACTERS.

- I. STEM, a *culm*, articulate.
- II. LEAVES, gramineous, alternate, vaginant, entire.
- III. FLOWERS, terminal, spiked, alternate. (k)
- IV. HABITATION, in fields and pastures near the sea.

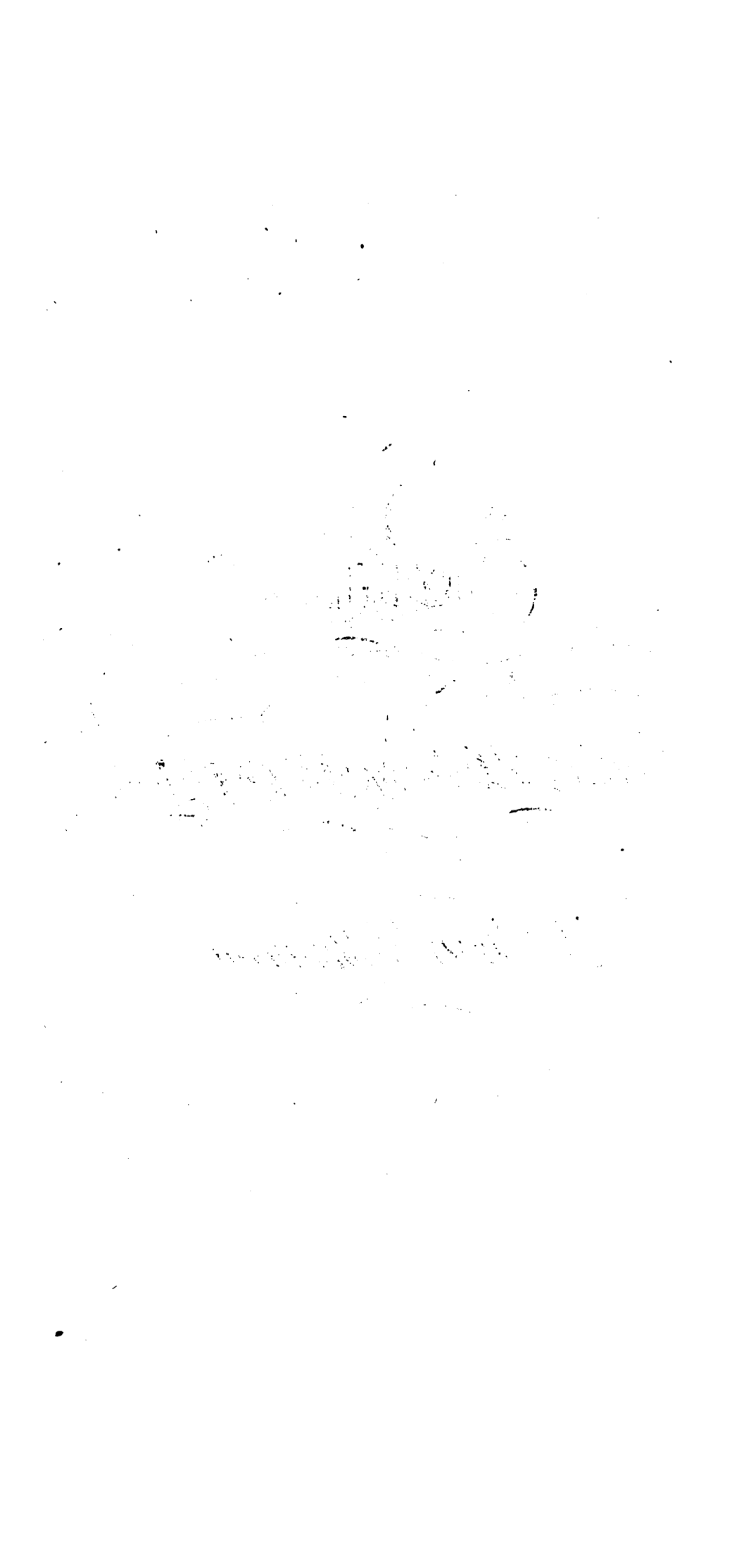
* This is the *Rottbollia* of Smith.



Class 4.

TETRANDRIA.

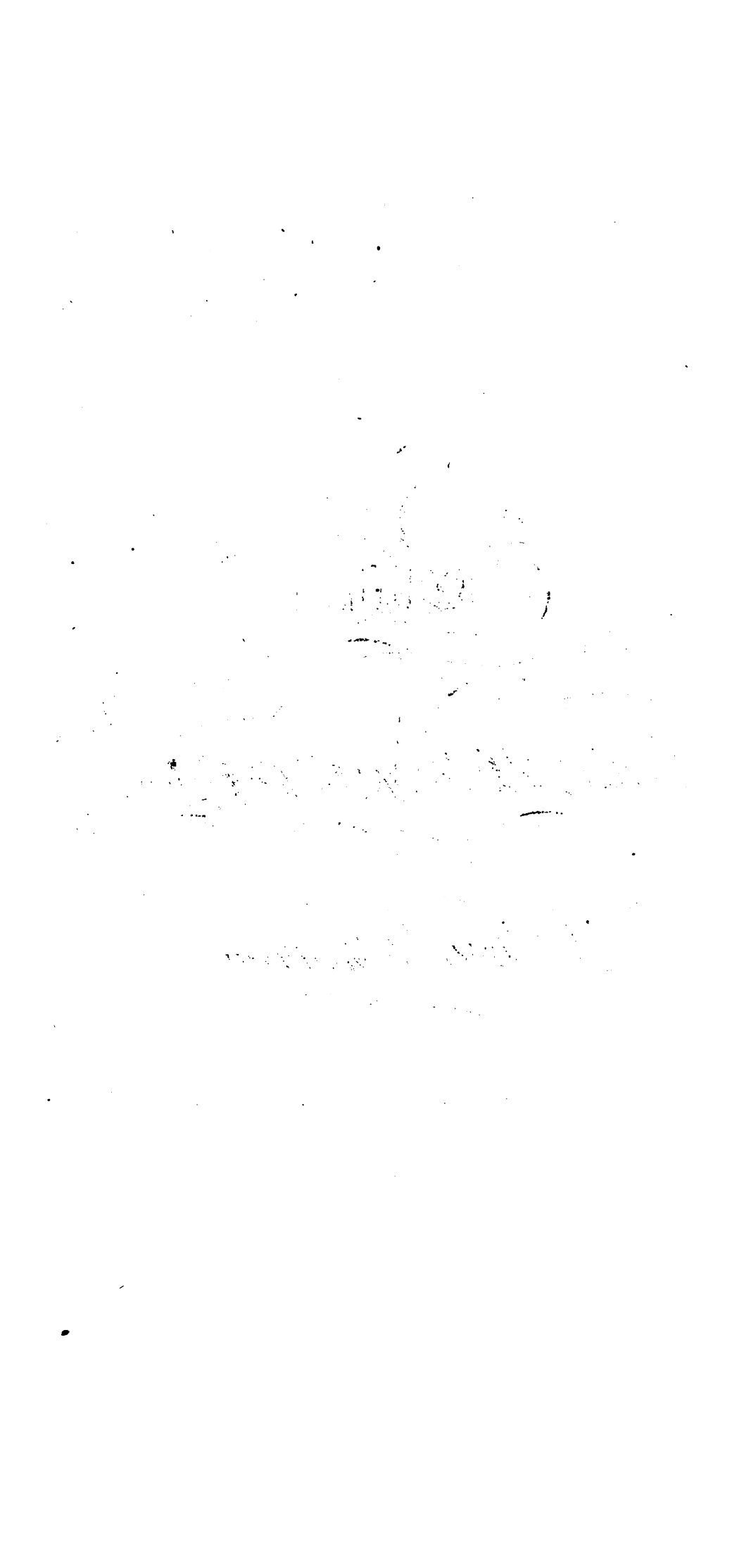
Four Stamina



CLASS IV.

TETRANDRIA.

FOUR STAMINA.



CLASS IV.

TETRANDRIA.

FOUR STAMINA.

THE
GENERA AND EXCEPTIONAL SPECIES
 OF
CLASS IV.

TETRANDRIA.
FOUR STAMINA.

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EXCEPTIONAL SPECIES.

1. GENTIANA CAMPESTRIS.	FIELD GENTIAN.
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3. CORONOPUS DIDYMA.	LESSER WART-CRESS.
4. GENTIANA CAMPESTRIS, again	FIELD GENTIAN.
5. CUSCUTA EUROPÆA.	GREATER DODDER.
6. CERASTRUM TETRANDRUM.	TETRANDEOUS CHICK-WEED.
7. MYRICA GALE.	SWEET GALE.
8. RHAMNUS CATHARTICUS.	PURGING BUCK-THORN.
9. URTICA DIOICA.	GREAT STINGING-NETTLE.

For these, Vide the preceding Tables.

Class IV. *Tetrandria*. Order I. *Monogyma*.

GENUS 67.

SCABIOSA. *Scabious*.

(From SCABIES, L. a *disorder of the skin*, which this plant is supposed to cure;—the English name the same.)

THE NATURAL CHARACTERS.

- I. CALYX, a *Perianth*, common, many-flowered, spreading, many-leaved, *Leaves* in various rows surrounding the receptacle, and sitting upon it, of which the interior are gradually smaller. The proper *Perianth* is double, both above, the *exterior* shorter, membranaceous, plicate, permanent. The *interior* five-parted, the laciniae subulate, capillary.
- II. COROLLA. The *universal* made up of equal, and sometimes unequal florets. The *proper*, monopetalous, tubular, half-four, or five-cleft, equal or unequal.
- III. STAMINA. *Filaments* four, subulato-capillary, weak. *Anthers* oblong, incumbent.
- IV. PISTILLUM. *Germen* beneath, involved by its proper sheath, like a little calyx. *Style* filiform, the length of the corolla. *Stigma* obtuse, obliquely emarginate.
- V. PERICARP, none.
- VI. SEED, single, ovate-oblong, involute, crowned variously with their proper calyx.
- VII. RECEPTACLE, common, convex, chaffy, or naked.

THE SECONDARY CHARACTERS.

- I. ROOT, fibrous or branched, generally premorse.
- II. STEM, herbaceous or sub-ruticous, simply branched (dichotomous in one species).
- III. LEAVES, opposite, the inferior petioled, the upper sessile, amplexicaul, sometimes most intire, or incised, or pinnated ending with an odd one.
- IV. FLOWERS, terminal, aggregated, and headed, violet or purple.
- V. HABITATION, in pastures, or corn fields.

Of this Genus there are three Species.

Class IV. *Tetrandria*. Order I. *Monogynia*.

GENUS 68.

DIPSACUS. *Teasel*.

(From DIPSAC, G. *to thirst*, that is, the sessile connate leaves contain much pure water, which relieves thirst ;—and the English appellation, from *tease*, the dry head of one species being used for carding of wool.)

THE NATURAL CHARACTERS.

- I. CALYX. A common *Perianth*, many-flowered, many-leaved, *leaflets* longer than the florets, lax, abiding. The *proper Perianth*, indistinct, superior.
- II. COROLLA. The *universal*, equal, the *proper* monopetalous, tubular, *limb* quadrifid, erect ; the external *laciniae* larger, and more acute.
- III. STAMINA. *Filaments* four, capillary, larger than the corolla : *Anthers* incumbent.
- IV. PISTILLUM. *Stigma* simple : *Style* filiform, the length of the corolla. *Germen* beneath.
- V. PERICARP, none.
- VI. SEED, single, columnar, crowned with the intire margin of the calyx.
- VII. RECEPTACLE, common, conical, divided with very long *Palaeæ*.

THE SECONDARY CHARACTERS.

- I. STEM, angular, ramous.
- II. LEAVES, opposite, connate, simple, intire, or incised.
- III. FLOWERS, capitate, terminal, white, also purple.
- IV. HABITATION, hedges, and moist places.

Of this Genus there are two Species.

Class IV. *Tetrandria*. Order I. *Monogynia*.

GENUS 69.

RUBIA. *Madder*.

(FROM RUBER, L. *red*, on account of the root being used as a red dye ;
—the English an old Saxon word.)

THE NATURAL CHARACTERS.

- I. CALYX. A *Perianth*, very small, four-toothed, above.
- II. COROLLA, *monopetalous*, bell-shaped, four-parted, (sometime five-cleft), without a tube.
- III. STAMINA. *Filaments* four, awl-shaped, shorter than the corolla.
Anthems simple.
- IV. PISTILLUM. *Stigma* capitate. *Style* filiform, above bifid.
- V. PERICARP. *Berries*, two, joined together, smooth.
- VI. SEED, single, nearly-round, umbilicate.

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, ramous, four-cornered, articulate.
- II. LEAVES, sessile, simple, very intire, verticillate.
- III. FLOWERS, paniculate, axillary and terminal, yellow.
- IV. HABITATION, bushy places.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order I. *Monogynia*.

GENUS 70.

GALIUM. *Bed-straw*.

(From *GALA*, *G. milk*, this plant being formerly employed to curdle milk ;—the English appellation from the dried plant being used in mattresses instead of straw.)

THE NATURAL CHARACTERS.

- I. CALYX. *Perianth* very small, four-toothed, above.
- II. COROLLA, monopetalous, rotate, four-parted, acute, no tube.
- III. STAMINA. *Filaments* four, awl-shaped, shorter than the corolla.
Anthers simple.
- IV. PISTILLUM. *Stigma* globular : *Style* filiform, semibifid, length of the stamina : *Germen* twin, beneath.
- V. PERICARP, *Berries*, dry, two, globular, coalesced.
- VI. SEED, one, kidney-shaped, large.

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, ramous, articulate, four-cornered, erect, or procumbent.
- II. LEAVES, sessile, verticillate, simple, very intire.
- III. FLOWERS, axillary and terminal, ramous, subpaniculate, white and yellow.
- IV. HABITATION, in bushy places, moist meadows, heaths, hedges, mountains, and walls.

Of this Genus there are thirteen Species.

Class IV. *Tetrandria*. Order I. *Monogynia*.

GENUS *Asperula*.

Asperula is a small, branched, herbaceous plant, with small, white, tubular flowers, and small, round, dry berries. It is found in woods and chalk-hills.

(From *ASPER*, L. *rough*, on account of the roughness of the leaves of some of the species;—the English from its being an inhabitant of *Woods*, and from its general roughness.)

THE NATURAL CHARACTERS.

- I. **CALYX**. A *Perianth*, small, four-toothed, above.
- II. **COROLLA**, monopetalous, funnel-shaped: *Tube* cylindrical, long: *limb*, four-parted: the *lacinae* oblong, obtuse, reflexed.
- III. **STAMINA**, four, placed near the apex of the tube. *Anthers* simple.
- IV. **PISTILLUM**. *Stigma* capitate. *Style* filiform, above bifid. *Germs*, two, somewhat round.
- V. **PERICARP**. *Berries*, dry, two, globular; united.
- VI. **SEED**, single, somewhat round, large.

THE SECONDARY CHARACTERS.

- I. **STEM**, ramous, articulate, four-cornered, herbaceous.
- II. **LEAVES**, sessile, simple, most intire, verticillate.
- III. **FLOWERS**, terminal, fasciculate, sessile, or pedunculate, white, and flesh coloured.
- IV. **HABITATION**, woods, and chalk-hills.

Of this Genus there are two Species.

Class IV. *Tetrandria*. Order I. *Monogynia*.

GENUS 72.

SHERARDIA. *Sherardia*.

(So named from **SHERARD**, a famous English botanist, who possessed a fine botanical garden at Eltham in Kent. Dillenius has described this Garden in a superb work, enriched with the finest prints of flowers.)

THE NATURAL CHARACTERS.

- I. **CALYX.** *Perianth* small, four-toothed, above, abiding.
- II. **COROLLA**, monopetalous, funnel-shaped. *Tube* cylindrical, long : limb four-parted, flat, acute.
- III. **STAMINA.** *Filaments* four, placed at the apex of the tube. *Anthers* simple.
- IV. **PISTILLUM.** *Stigma* capitate : *Style* filiform, above, bifid : *Germen*, twin, oblong, beneath.
- V. **PERICARP**, none.
- VI. **SEED.** Fruit oblong, crowned longitudinally, separable into two seeds, marked at the apex with three points, on this side convex, on the other flat.

THE SECONDARY CHARACTERS.

- I. **STEM**, herbaceous, ramous, four-cornered, articulate.
- II. **LEAVES**, sessile, simple, very intire, verticillate, or the inferior verticillate, the superior, opposite.
- III. **FLOWERS**, pedunculate, terminal, axillary, aggregate, blue.
- IV. **HABITATION**, corn-fields.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order I. *Monogynia*.

GENUS 73.

EXUCUM. *Gentianella*.

(From *EX*, *G. out*, and *AGO*, to drive, from its supposed efficacy in expelling poison ;—the English name from its *diminutiveness* and affinity to the *Gentians*.)

THE NATURAL CHARACTERS.

- I. CALYX, a *Perianth*, four-leaved: *leaflets* ovate, obtuse, erect, spreading, permanent.
- II. COROLLA, monopetalous, permanent ; tube sub-globular, length of the calyx, *limb* four-parted: the *laciniæ* roundish, spreading.
- III. STAMINA. *Filaments* four, filiform, sitting upon the tube, longer than the limb ; *anthers* roundish.
- IV. PISTILLUM. *Stigma* capitate. *Style* filiform, erect, length of the limb. *Germen* roundish, filling the tube.
- V. PERICARP. A *Capsule* roundish, compressed, on both sides furrowed, bilocular, length of the calyx.
- VI. SEEDS, numerous, on a central receptacle, filling the capsule.

THE SECONDARY CHARACTERS.

- I. STEM, filiform, dichotomous.
- II. LEAVES, sessile, opposite, very intire.
- III. FLOWERS, long peduncles, yellow.
- IV. HABITATION, bogs.

Of this Genus there is one Species.

Class IV. Tetrandria. Order I. Monogynia.

GENUS 74.

PLANTAGO. Plantain.

(Some derive this word from PLANTA, L. the *heel*, because its leaves are flat, as if trod upon; and Tournefort from PLANTA, L. a *plant*, in super-eminence; and Linnæus, from TANGERE, L. to *touch*, as this plant is pleasant to feel;—the English the same as the Latin.)

THE NATURAL CHARACTERS.

- I. CALYX, *Perianth* four-parted, erect, very short, permanent.
- II. COROLLA, monopetalous, permanent, withering. *Tube* cylindrical-globose, *limb* four-parted, depressed: the *laciniæ* ovate, acute.
- III. STAMINA. *Filaments* four, capillary, erect, excessive long: *Anthers* somewhat oblong, compressed, incumbent.
- IV. PISTILLUM. *Stigma* simple: *Style* filiform, half as long as the stamens. *Germen* ovate.
- V. PERICARP. A *Capsule* ovate, bilocular, cut round horizontally, the dissepiment loose.
- VI. SEEDS, numerous, oblong.

THE SECONDARY CHARACTERS.

- I. STEM, a scape, or leafy, herbaceous, or fruticose.
- II. LEAVES, where there is a scape, radical, simple, intire, or incised; in the leafy, the cauline, opposite, and very intire.
- III. FLOWERS, in spikes, terminal.
- IV. HABITATION, in meadows, pastures, and the sea-shore.

Of this Genus there are five Species.

Class IV. *Tetrandria*. Order I. *Monogynia*.

GENUS 75.

CENTUNCULUS. *Pimpernel*.

(The Latin appellation is used by Pliny. B. 24. c. 15—*Pimpernel* is employed to express the Genus, and is derived from the position of the leaves in two orders, like feathers, *pimpernella* id est, *bi-pinella*; but we had better retain here the Latin name.)

THE NATURAL CHARACTERS.

- I. CALYX. *Perianth* four-parted, spreading, permanent: the *laciniae* acute, lanceolate, longer than the corolla.
- II. COROLLA, monopetalous, rotate. *Tube* subglobular. *Limb* four-parted, flat: the *laciniae* subovate.
- III. STAMINA. *Filaments* four, the length nearly of the corolla. *Anthers* simple.
- IV. PISTILLUM. *Stigma* simple. *Style* filiform, length of the corolla, permanent.
- V. PERICARP, a *capsule* globular, one-celled, opening round horizontally.
- VI. SEEDS, many, roundish, very small.

THE SECONDARY CHARACTERS.

- I. STEM, ramose, ascending, short.
- II. LEAVES, alternate, sessile.
- III. FLOWERS, solitary, axillary, sessile, white or red.
- IV. HABITATION, in bogs.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order I. *Monogynia*.

GENUS 76.

SANGUISORBA. *Burnet*.

(From *SANGUIS*, L. *blood*, and *SORBERE*, L. *to absorb*, being esteemed a good *vulnerary*;—English name uncertain.)

THE NATURAL CHARACTERS.

- I. CALYX, a *Perianth* diphyllous: *leaflets* opposite, very short, caducous.
- II. COROLLA, monopetalous, rotate, four-parted: the *laciniæ* ovate, obtuse, cohering by their claws.
- III. STAMINA. *Filaments* four, above broader, length of the corolla. *Anthers* roundish, small.
- IV. PISTILLUM. *Stigma* obtuse. *Style* filiform, very short. *Ger-men* four-cornered, placed betwixt the calyx and corolla.
- V. PERICARP, a *Capsule*, small, bilocular.
- VI. SEEDS, small.

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, smooth, branching, leafy.
- II. LEAVES, alternate, petiolate, amplexicaul, pinnated, leaflets petiolate, simple, intire.
- III. FLOWERS, terminal, spicate.
- IV. HABITATION, meadows, and pastures.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order I. *Monogynia*.

GENUS 77.

EPIMEDIUM. *Barren-wort*.

(From the Greek name *Epimedium* used by Dioscorides, a plant growing in *Media*;—the English name from its supposed *virtues* in curing *barrenness*.)

THE NATURAL CHARACTERS.

- I. CALYX, *Perianth* four-leaved: *leaflets* ovate, obtuse, concave, patent, small, immediately placed under, not alternating with the petals, caducous.
- II. COROLLA. *Petals* four, ovate, obtuse, concave, patent. *Nectaries*, four, cup-shaped, in the bottom obtuse, size of the petals, incumbent on them, affixed to the receptacle by the margin of the mouth.
- III. STAMINA. *Filaments* four, subulate, pressing the style: *Anthers* oblong, erect, bilocular, bivalved, bursting from the base towards the apex, the dissepiment free.
- IV. PISTILLUM. *Stigma* simple. *Style* shorter than the germen, length of the stamina. *Germen* oblong.
- V. PERICARP, a *Siliqua*, oblong, acuminate, one-celled, two-valved.
- VI. SEEDS, many, oblong.

THE SECONDARY CHARACTERS.

- I. STEM, none.
- II. LEAVES, more than compound, flower-bearing.
- III. FLOWERS, panicked, blood-coloured.
- IV. HABITATION, Alpine bushy places.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order I. *Monogyniä*.

GENUS 78.

CORNUS. *Cornel-tree*.

(From CORNU, L. *an horn*, the wood of this tree being as *hard as horn*;—the *English* from the *Latin* word.)

THE NATURAL CHARACTERS.

- I. CALYX, an *Involucre* three-leaved, many-flowered: *leaflets* ovate, the two opposite smaller, coloured, deciduous.
Perianth very small, four-toothed, above, deciduous.
- II. COROLLA, *Petals* four, oblong, acute, flat, less than the involucre.
- III. STAMINA. *Filaments* four, subulate, erect, longer than the corolla. *Anthers* roundish, incumbent.
- IV. PISTILLUM. *Stigma* obtuse. *Style* filiform, length of the corolla. *Germen* roundish, beneath.
- V. PERICARP, a *Drupe* roundish, umbilicated.
- VI. SEED, a *nut* cordate, or oblong, two-celled.

THE SECONDARY CHARACTERS.

- I. STEM, arboreous.
- II. LEAVES, opposite, petiolate, simple, very intire.
- III. FLOWERS, on the branches, terminal, cymous, white and purple.
- IV. HABITATION, woods, and mountains.

Of this Genus there are two Species.

Class IV. *Tetrandria*. Order. I. *Monogynia*.

GENUS 79.

ALCHEMILLA. *Ladies-mantle*.

(From its pretended virtues in *Alchemy*, or ancient chemistry;—and the English from the plaiting and regularity of its leaves, giving an appearance of a Lady's Mantle.)

THE NATURAL CHARACTERS.

- I. CALYX, a *Perianth* monophyllous, tubular, permanent: the *mouth* flat, eight-parted: the alternate *laciniæ* less.
- II. COROLLA, none.
- III. STAMINA. *Filaments* four, erect, subulate, very small, placed on the mouth of the calyx. *Anthers* roundish.
- IV. PISTILLUM. *Stigma* globular. *Style* filiform, length of the stamens, inserted at the base of the germen. *Germen* ovate.
- V. PERICARP, none. The neck of the *calyx* closes nor opens.
- VI. SEED, single, elliptic, compressed.

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, smooth, leafy, branched.
- II. LEAVES, alternate, petiolate, simple, lobed, plaited.
- III. FLOWERS, axillary, or terminal, pedunculate, or paniculate, or sessile and glomerate, green.
- IV. HABITATION, meadows, pastures, rocks, and corn-fields.

Of this Genus there are three Species.

Class IV. *Tetrandriu.* Order II. *Digynia.*

GENUS 80.

BUFONIA. *Bufonia.*

(A Genus so named apparently in honour of the great natural Historian *Buffon*, but it was purposely misspelt, as he had objected to Linnaeus, that he made Natural History a mere nomenclature (instead of describing the things themselves), and hence it may be supposed to have its origin from *bufo*, L. a toad.—No English generic appellation.)

THE NATURAL CHARACTERS.

- I. CALYX. A *Perianth* four-leaved, erect, permanent: *leaflets* subulate, keeled, with membranous margins.
- II. COROLLA. *Petals* four, oval, emarginate, erect, equal, shorter than the calyx.
- III. STAMINA. *Filaments* four, equal, length of the germen. *Anthers* twin.
- IV. PISTILLA. *Stigma* simple. *Styles* two, length of the stamens. *Germen* ovate, compressed.
- V. PERICARP. *Capsule* oval, compressed, one-celled, two-valved.
- VI. SEEDS, two, oval, compressed, with a small rising, on one side convex.

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, smooth, articulate, ramous.
- II. LEAVES, opposite, grassy, subulate, simple, very intire, nearly united.
- III. FLOWERS, axillary, solitary, pedunculate, white.
- IV. HABITATION, sea-coast.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order III. *Tetragynia*.

GENUS 81.

ILEX. *Holly*.

(From *ILEX*, *an oak*, the leaves being incised, or indented, as an oak;—the English appellation from this *evergreen* being, with the *missletoe*, held sacred or *holy* by the Druids.)

THE NATURAL CHARACTERS.

- I. CALYX. A *Perianth* four-toothed, very small, permanent.
- II. COROLLA, monopetalous, four-parted, flat, the *laciniæ* roundish, concave, spreading, rather large, cohering by the claws.
- III. STAMINA. *Filaments* four, subulate, shorter than the corolla. *Anthers* small.
- IV. PISTILLA. *Stigmata* four, obtuse. *Styles* none. *Germen*, roundish.
- V. PERICARP. A *Berry*, roundish, four-celled.
- VI. SEED, single, bony, oblong, obtuse, on this side gibbous, on the other angular.

THE SECONDARY CHARACTERS.

- I. STEM, arboreous.
- II. LEAVES, alternate, petiolate, simple, intire.
- III. FLOWERS, axillary, crowded together, white.
- IV. HABITATION, in hedges.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order III. *Tetragynia*.

GENUS 82.

TILLÆA. *Tillæa*.

(So named in honour of TILLI, an Italian Botanist, F. R. S. London, and author of an account of the Medical Plants cultivated in the Botanic Garden at Pisa, in the year 1723.)

THE NATURAL CHARACTERS.

- I. CALYX. A *Perianth*, four-parted, flat; the *laciniæ* ovate, large.
- II. COROLLA. *Petals* four, ovate, acute, flat, rather less than the calyx.
- III. STAMINA. *Filaments* four, simple, shorter than the corolla. *Anthers* small.
- IV. PISTILLA. *Stigmata* obtuse. *Styles* simple. *Germens* four.
- V. PERICARP. *Capsules* four, oblong, acuminate, reflexed, length of the flower, bursting longitudinally upwards.
- VI. SEEDS, two, ovate.

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, subramous.
- II. LEAVES, scattered, sessile, simple, very intire
- III. FLOWERS, axillary, sessile, single, pellucid.
- IV. HABITATION, sandy heaths.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order III. *Tetragynia*.

GENUS 83.

POTAMOGETON. *Pond-weed*.

(From POTAMOS, *G. a river*, and GEITON, *near*;—the English appellation expressive of the same, a *weed* or plant, growing near a pond.)

THE NATURAL CHARACTERS.

- I. CALYX, none.
- II. COROLLA. *Petals* four, roundish, obtuse, concave, erect, unguiculate, deciduous.
- III. STAMINA. *Filaments* four, flat, obtuse, very short. *Anthers* twin, short.
- IV. PISTILLA. *Stigmata* obtuse. *Styles* none. *Germens* four, ovato-acuminate.
- V. PERICARP, none.
- VI. SEEDS, four, roundish, acuminate, on this side gibbous, on that compressed and angular.

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, smooth, ramous, articulate.
- II. Leaves, alternate, or opposite, sessile, or petiolate, very intire, or incised.
- III. FLOWERS, axillary, single, spicate, green, purple, reddish, and olive.
- IV. HABITATION, ditches, and rivers.

Of this Genus there are ten Species.

Class IV. *Tetrandria*. Order III. *Tetragynia*.

GENUS 84.

RADIOLA. *All-seed*.

(From RADIX, L. a root, and OLERE, L. to smell, from the supposed sweet smell of its root;—the English appellation from the bushyness of this plant, producing a number of seeds, so that in its maturity, it appears all seed.)

THE NATURAL CHARACTERS.

- I. CALYX, four leaved, lanceolate, erect, small, permanent.
- II. COROLLA. *Petals* four, oblong, above becoming gradually broader, obtuse, patent, large.
- III. STAMINA, four, subulate, length of the calyx. *Anthers* simple, arrow-shaped.
- IV. PISTILLA. *Stigmata* capitate. *Styles* short. *Germina*, ovate.
- V. PERICARP. *Capsule* globular, rudely four-sided, eight-valved, eight-celled.
- VI. SEED, single.

THE SECONDARY CHARACTERS.

- I. STEM, dichotomous, corymbous, smooth.
- II. LEAVES, sessile, ovate.
- III. FLOWERS, small, white.
- IV. HABITATION, sandy places.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order III. *Tetragynia*.

GENUS 85.

SAGINA. *Pearl-wort*.

(From SAGINA, which means *nutriment*, this plant being found in rich pastures, and eagerly sought after by sheep, which it is supposed to fatten much ;—the English name from its value, or the delicate small white petals looking like *pearls*.)

THE NATURAL CHARACTERS.

- I. CALYX. A *Perianth* four-leaved : *leaflets* ovate, concave, very much patent, permanent.
- II. COROLLA. *Petals* four, ovate, obtuse, shorter than the calyx, patent.
- III. STAMINA. *Filaments* four, capillary. *Anthers* roundish.
- IV. PISTILLUM. *Stigmata*, simple ; *Styles* four, subulate, recurved, pubescent. *Germen* roundish.
- V. PERICARP. A *Capsule*, ovate, straight, four-celled, four-valved.
- VI. SEEDS, numerous, small, affixed to a receptacle.

THE SECONDARY CHARACTERS.

- I. STEM, smooth, articulate, simple, or ramous.
- II. LEAVES, opposite, sessile, simple, very intire.
- III. FLOWERS, pedunculate, single, axillary or terminal, white.
- IV. HABITATION, rubbish, and gravelly pastures.

Of this Genus there are three Species.

Class IV. *Tetrandria*. Order III. *Tetragynia*.

GENUS 86.

RUPPIA. *Ruppia*.

(Named in honour of RUPPIUS, a German, who published the Flora of Jena in 1718.—No English name.)

THE NATURAL CHARACTERS.

- I. CALYX. *Spathe*, besides the sheath of the leaves, scarce any. *Spadix*, subulate, most simple, straight, the fruit matured, incurved, clothed on each side with the fructification.
- II. COROLLA, none.
- III. STAMINA. *Filaments* none. *Anthers* four, sessile, equal, roundish, nearly-twin.
- IV. PISTILLUM. *Stigmata* obtuse. *Styles* none. *Germina* four or five, subovate, conniving.
- V. PERICARP, none. *Seeds* sitting upon proper filiform pedicels, the length of the fruit.
- VI. SEEDS, four or five, ovate, oblique, terminated by a flat orbicular stigma.

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, articulate, smooth, ramous.
- II. LEAVES, alternate, sessile, linear, simple, very intire.
- III. FLOWERS, axillary, pedunculate, single, ramous, olive.
- IV. HABITATION, salt-water ditches.

Of this Genus there are two Species.

Class IV. *Tetrandria*. Order IV. *Monœcia*.

GENUS 87.

BETULA. *Birch*.

(Some derive this word from PETULE, G. *a leaf*, from this tree abounding in twigs and leaves, but it is rather of Northern origin, for it is *Biorken* in Swedish, *Birke* in German, and hence the English appellation, *Birch*.)

THE NATURAL CHARACTERS.

MALE FLOWER.

- I. CALYX. A *common ament*, imbricated all round, lax, cylindrical : composed of *Scales*, three-flowered, to each of which are two small scales, most minute, attached to the sides.
- II. COROLLA, composed of three *floscules*, affixed to the disk of each calyx-scale. The *proper* monopetalous, four-parted, patent, small ; the *laciniae* ovate, obtuse.
- III. STAMINA, four, very small. *Anthers* twin.

FEMALE FLOWER.

- I. CALYX. *Ament common*, imbricated ; having three *scales*, every where opposite, affixed to a rachis, two-flowered, cordate with a point, separated a little by a sinus, or hollow towards the apex, concave, short.
- II. COROLLA, none apparent.
- III. PISTILLUM. *Stigmata* simple. *Styles* two, setaceous, length of the calycine-scale. *Proper Germen*, ovate, small.
- IV. PERICARP, none. *Ament* cherishes the seeds of the two florets under each scale.
- V. SEED, single, ovate.

THE SECONDARY CHARACTERS.

- I. STEM, arboreous.
- II. LEAVES, alternate, petiolate, simple, intire.
- III. FLOWERS, axillary, pedunculate, with single peduncles, white.
- IV. HABITATION, woods, moist heaths, and watery places.

Of this Genus there are three Species.

Class IV. *Tetrandria*. Order IV. *Monœcia*.

GENUS 88.

BUXUS. *Box*.

(From the Greek word *puxos*, a wooden bowl, because these cups were usually made of this firm wood ;—the English appellation is from the Latin.)

THE NATURAL CHARACTER.

MALE FLOWER, ARISING FROM THE BUDS OF THE PLANTS.

- I. CALYX. A *Perianth*, three-leaved ; leaflets roundish, obtuse, concave, patent.
- II. COROLLA. *Petals* two, roundish, concave, very much resembling the calyx, but larger.
- III. STAMINA. *Filaments* four, subulate, erect-patent, somewhat larger than the calyx. *Anthers*, erect, twin. The rudiment of a Germen, without style or stigma.

FEMALE FLOWER, IN THE SAME BUDS WITH THE MALE FLOWER.

- I. CALYX. *Perianth* four-leaved : *leaflets* roundish, obtuse, concave, patent.
- II. COROLLA. *Petals* three, roundish, concave, like the calyx, larger than the calyx.
- III. PISTILLUM. *Stigmata* obtuse, hispid : *Styles* three, very short, permanent : *Germen* roundish, obtusely three-cornered.
- IV. PERICARP. A *Capsule* roundish, three-beaked, three-celled, bursting elastically in three directions.
- V. SEEDS, twin, oblong, on this side roundish, on that flat.

THE SECONDARY CHARACTERS.

- I. STEM, shrubby, branches somewhat four-cornered.
- II. LEAVES, opposite, sessile, simple, very intire.
- III. FLOWERS, sessile, opposite, axillary, terminal, yellow.
- IV. HABITATION, chalky hills.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order IV. *Monœcia*.

GENUS 89.

ERIOCAULON. *Pipe-wort*.

(From ERION, G. *wool*, and KAULOS, G. *stem*, from the woolliness of the stem.)

THE NATURAL CHARACTERS.

MALE FLOWER.

- I. CALYX. Proper *Perianth*, two-leaved ; *leaflets* wedge-shaped, concave.
- II. COROLLA. One *Petal*, funnel-shaped, two-parted, obtuse.
- III. STAMINA. *Filaments* four, inserted in the floret. *Anthers* roundish.

FEMALE FLORET.

- I. CALYX, as in the male.
- II. COROLLA. Two *Petals*, erect, oblong, concave.
- III. PISTILLUM. *Stigma* simple ; *Style* setaceous, two-parted. *Germen* above, twin.
- IV. PERICARP. *Capsule* two-celled.
- V. SEED, single, roundish.

THE SECONDARY CHARACTERS.

- I. STEM, seven-cornered.
- II. LEAVES, acuminate, cellular-reticulated.
- III. FLOWERS. Male in the middle of the disk. Female in the ray, white, two black dots within.
- IV. HABITATION, lakes.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order IV. *Monœcia*.

GENUS 90.

LITTORELLA. *Shore-weed*.

(From LITTUS, LITTORIS, L. *the shore*, being a plant which grows near water ;—the English appellation conveys a similar habitation.)

THE NATURAL CHARACTERS.

MALE FLOWER.

- I. CALYX. A *Perianth* four-leaved, erect.
- II. COROLLA, one-petalled. *Tube* as long as the calyx: *Limb* four-parted, erect, permanent.
- III. STAMINA. *Filaments* four, filiform, very long, inserted into the receptacle. *Anthers* cordate.

FEMALE FLOWERS.

- I. CALYX, none.
- II. COROLLA, one-petalled, conical, indistinctly three or four-cleft, permanent.
- III. PISTILLUM. *Stigma* acute: *Style* filiform, very long: *Germen*, oblong.
- IV. PERICARP, none. *Corolla* invests the fruit.
- V. SEED, a nut, one-celled.

THE SECONDARY CHARACTERS.

- I. STEM, none.
- II. LEAVES, linear, very entire.
- III. FLOWERS, male, peduncled, solitary, white: female, radical, sessile.
- IV. HABITATION, marshes.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order IV. *Monœcia*.

GENUS 91.

URTICA. *Nettle*.

(From URERE, *L. to burn*, from its stinging quality ;—the English appellation is from *needle*, a sharp iron instrument for sewing.)

THE NATURAL CHARACTERS.

MALE FLOWERS.

- I. CALYX. A *Perianth* four-leaved : *leaflets* roundish, concave, obtuse.
- II. COROLLA, none. *Nectary* in the centre of the flower, pitcher-shaped, intire, beneath narrower, small.
- III. STAMINA. *Filaments* four, subulate, length of the calyx, patent, within each leaf of the calyx. *Anthers* two-celled.

FEMALE FLOWERS.

- I. CALYX. A *Perianth* two-valved, ovate, concave, erect, permanent.
- II. COROLLA, none.
- III. PISTILLUM. *Stigma* villous. *Style* none. *Germen* ovate.
- IV. PERICARP, none. *Calyx* shutting.
- V. SEED, one, ovate, obtuse, compressed, shining.

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, ramous.
- II. LEAVES, petiolate, simple, intire, or serrate, opposite, or alternate.
- III. FLOWERS, pedunculate, axillary, opposite or alternate, greenish.
- IV. HABITATION, rubbish, hedges, and ditches.

Of this Genus there are three Species.

Class IV. *Tetrandria*. Order V. *Diœcia*.

GENUS 92.

MYRICA. *Sweet-gale*.

(From MURIKE, G. and this from MURON, G. any *ointment*;—the English appellation from its *sweet* smell, and *gale* in the Celtic means *perfume*.)

THE NATURAL CHARACTERS.

MALE FLOWER.

- I. CALYX. An *Ament* ovate-oblong, on every side imbricated, lax, composed of *scales*, one-flowered, half-moon-shaped, obtusely acuminate, concave: no *proper perianth*.
- II. COROLLA, none.
- III. STAMINA. *Filaments* four, filiform, short, erect: *Anthers*, large, twin, with bifid lobes.

FEMALE FLOWER.

- I. CALYX, as in the male.
- II. COROLLA, none.
- III. PISTILLUM. *Stigmata* simple: *Styles* two, filiform, longer than the calyx: *Germen* subovate.
- IV. PERICARP. A *Berry*, one-celled.
- V. SEED, one.

THE SECONDARY CHARACTERS.

- I. STEM, shrubby.
- II. LEAVES, alternate, subsessile, slightly serrated.
- III. FLOWERS, male and female flowers sometimes on the same plant, green.
- IV. HABITATION, bogs.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order V. *Diœcia*.

GENUS 93.

HIPPOPHAE. *Buck-thorn*.

(From *IPPOS*, G. *an horse*, and *PHAO*, G. *to give light*, from its supposed virtue in curing of blindness in horses;—the English appellation from its branches spreading out like a *buck's* head, and ending straight, stiff, and sharp, like a *thorn*.)

THE NATURAL CHARACTERS.

MALE FLOWER.

- I. CALYX. A *Perianth* one-leaved, two-parted, two-valved, with an intire base: the *laciniæ* roundish, obtuse, concave, erect, apices conniving, gaping at the sides.
- II. COROLLA, none.
- III. STAMINA. *Filaments* four, very short: *Anthers* oblong, angular, nearly the length of the calyx.

FEMALE FLOWER.

- I. CALYX. A *Perianth* one-leaved, ovate-oblong, tubular, clubbed, bifid at the mouth, deciduous.
- II. COROLLA, none.
- III. PISTILLUM. *Stigma* somewhat-thick, oblong, erect, twice the length of the calyx: *Style* simple, very short. *Germen*, roundish, small.
- IV. PERICARP. A *Berry*, globular, one-celled.
- V. SEED, one, roundish.

THE SECONDARY CHARACTERS.

- I. STEM, shrubby, ramous.
- II. LEAVES, smooth above, whitish and scaly underneath.
- III. FLOWERS, axillary, single, green.
- IV. HABITATION, sea-shores.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order V. *Diaecia*.

GENUS 94.

VISCUM. *Missletoe*.

(A Latin word, and it forms into an adjective, *viscosus*, *viscous*, from its sap being a glewy nature converted into the well-known substance birdlime ;—the English appellation is of Saxon origin.)

THE NATURAL CHARACTERS.

MALE FLOWER.

- I. CALYX. A *Perianth* four-parted : *leaflets* ovate, equal.
- II. COROLLA, none.
- III. STAMINA, four. *Filaments* none. *Anthers* oblong, acuminate, adhering to each leaflet of the calyx.

FEMALE, OFTEN OPPOSITE THE MALE.

- I. CALYX. A *Perianth* four-leaved ; leaflets ovate, small, sessile, deciduous, sitting upon the germen.
- II. COROLLA, none.
- III. PISTILLUM. *Stigma*, obtuse, scarcely emarginate : *Style*, none ; *Germen* oblong, three-cornered, at the margin obscurely quadrifid, crowned, beneath.
- IV. PERICARP. A *Berry*, globular, one-celled, smooth.
- V. SEED, one, obcordate, compressed, obtuse, fleshy.

THE SECONDARY CHARACTERS.

- I. STEM, dichotomous, parasitical, articulate, round, suffruticose,
- II. LEAVES, opposite, simple, very intire.
- III. FLOWERS, axillary, spicate, solitary, sessile.
- IV. HABITATION, chiefly on apple trees, also on oaks, &c.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order VI. *Polygamia*.

GENUS 95.

VALANTIA. *Cross-wort*.

(Named in honour of *Vaillant*, who wrote an history of the plants growing about Paris—born in 1669, died in 1722 ;—the English appellation from the four leaves being placed in the form of a *cross*.)

THE NATURAL CHARACTERS.

BISSEXUAL FLOWER, SOLITARY.

- I. CALYX, scarce any.
- II. COROLLA, monopetalous, flat, four-parted ; the *lacinae* ovate, acute.
- III. STAMINA. *Filaments*, four, length of the corolla : *Anthers* small.
- IV. PISTILLA. *Stigmata* headed : *Styles* length of the stamina, semi-bifid. *Germen* large, beneath.
- V. PERICARP, leathery, compressed, reflexed.
- VI. SEED, one, globular.

MALE FLOWERS SINGLE, SITUATE ON EACH SIDE OF THE BISSEXUAL FLOWERS.

- I. CALYX, same as the other.
- II. COROLLA, ditto.
- III. STAMINA, *Filaments*, four, length of corolla, small.
- IV. PISTILLUM. Rudiment of a germen only.
- V. PERICARP, abortive.
- VI. SEEDS, none.

THE SECONDARY CHARACTERS.

- I. STEM, herbaceous, articulate, four-sided, ramous.
- II. LEAVES, sessile, simple, intire, verticillate.
- III. FLOWERS, axillary, pedunculate, crowded, gold-coloured.
- IV. HABITATION, fields, rocks, and hedges.

Of this Genus there is one Species.

Class IV. *Tetrandria*. Order VI. *Polygamia*.

GENUS 96.

PARIETARIA. *Pellitory of the Wall*.

(From *PARIES*, L. *a wall*, from its place of growth ;—the English name expresses the same.)

THE NATURAL CHARACTERS.

BISSEXUAL FLOWERS, TWO CONTAINED IN AN INVOLUCRE, FLAT.

- I. CALYX, six-leaved : *leaflets* two, opposite, larger than the outer : a *Perianth* one-leaved, four-cleft, flat, obtuse, the size of the dimidiate involucre.
- II. COROLLA, none, unless you esteem the calyx such.
- III. STAMINA. *Filaments* four, subulate, longer than the flowering perianth, expanding with it, permanent. *Anthers* twin.
- IV. PISTILLUM. *Stigma* pencil-form, headed. *Style*, filiform, coloured. *Germen* ovate.
- V. PERICARP, none : the *Perianth* becomes elongated, large, bell-shaped, the mouth shut with conniving laciniae.
- VI. SEED, one, ovate.

FEMALE FLOWER, ONE BETWIXT THE TWO BISSEXUAL, WITHIN THE INVOLUCRE.

- I. CALYX, as in the other.
- II. COROLLA, the same.
- III. PISTILLUM, the same.
- IV. PERICARP, none : *Perianth*, thin, includes the fruit.
- V. SEED, as in the bisexual flower.

THE SECONDARY CHARACTERS.

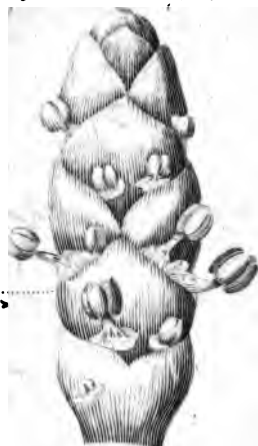
- I. STEM, herbaceous, smooth, ramous.
- II. LEAVES, alternate, petiolate, simple, very intire.
- III. FLOWERS, axillary, subsessile, crowded, green.
- IV. HABITATION, on walls.

Of this Genus there is one Species.

EX. HERBACEOUS GLASS-WORT.
(Salicornia Herbacea.)

A branch of the Salicornia.

Part of the same magnified.



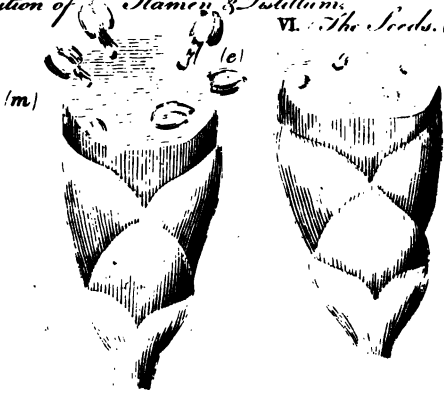
A Stamen. (n)

III. IV. *Stamen & Pistillum magnified more*



*Pistillum magnified
 Stigma.
 Germen*

*A transverse Section of Salicornia,
 how the position of Stamen & Pistillum.*



*Seed.
 (h)*

Her del.

** Ex. for Example.*

Parks sculp.

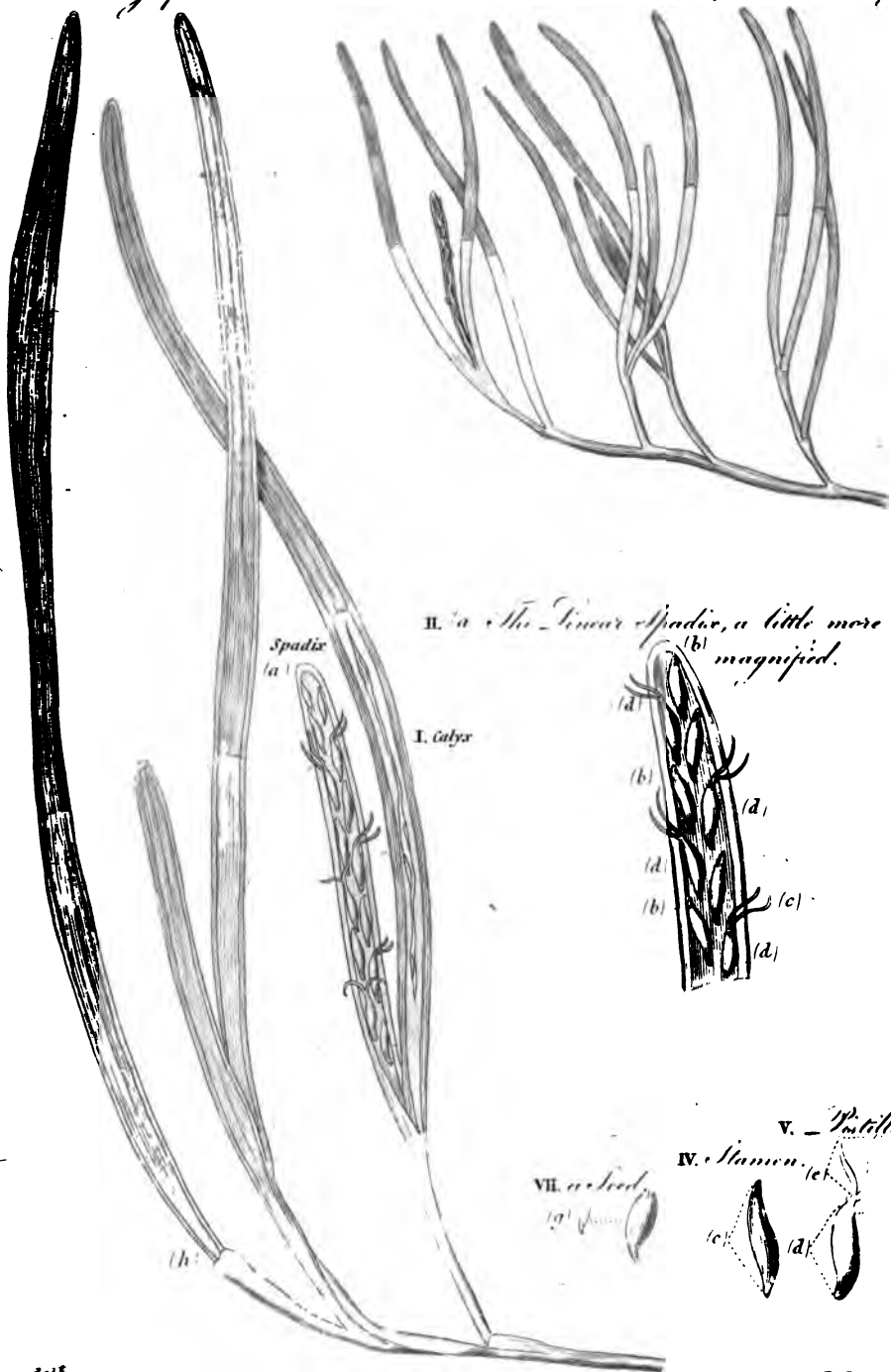


EX. COMMON GRASS-WRACK.

(*Zostera Marina*.)

do. magnified.

A branch of the *Zostera* of the natural size



Willer del.

Parker sculp.

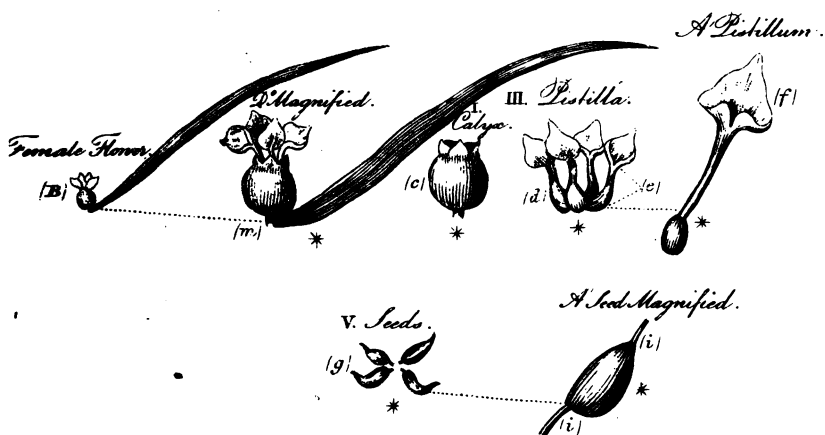
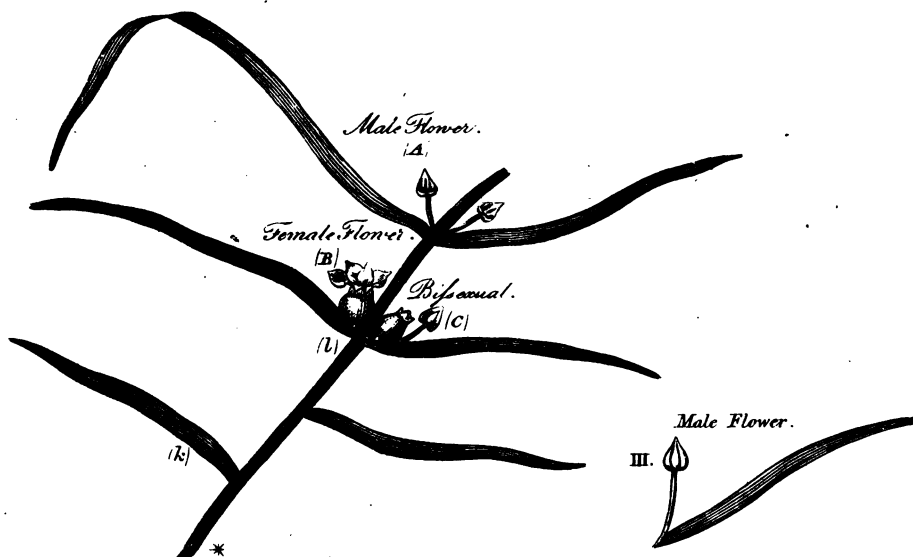
London, Published by D. Thornton, Jan'y 1, 1812.



EX. MARSHY POND-WEED.

(*Zannichellia Palustris.*)

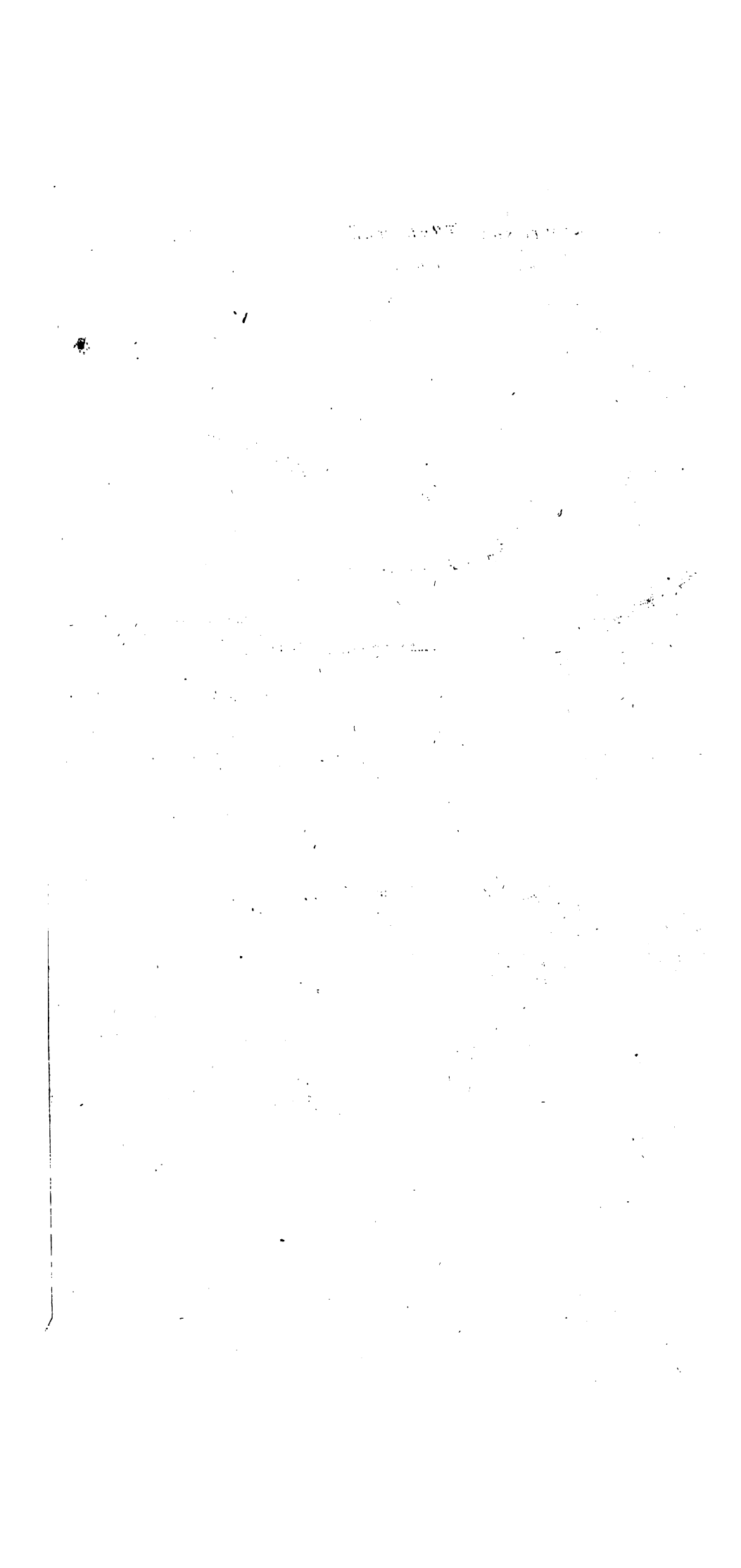
Bisexual & Unisexual Flowers.



ed.

Parks sculp.

London, Published by D. Thornton, Jan. 1. 1812.

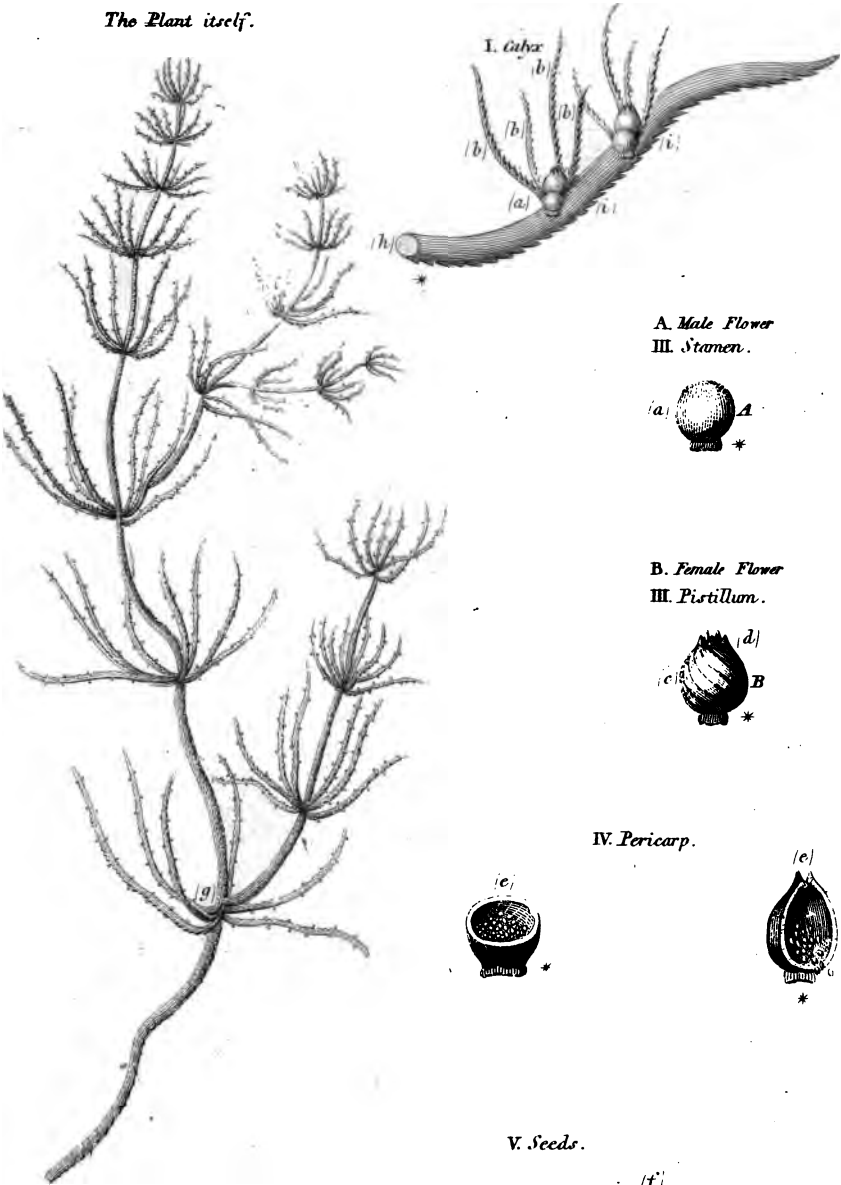


EX. COMMON STONE-WORT.

(*Chāra Vulgāris.*)

A leaf magnified.

The Plant itself.



A. Male Flower
III. Stamen.

B. Female Flower
III. Pistillum.

IV. Pericarp.

V. Seeds.

del.

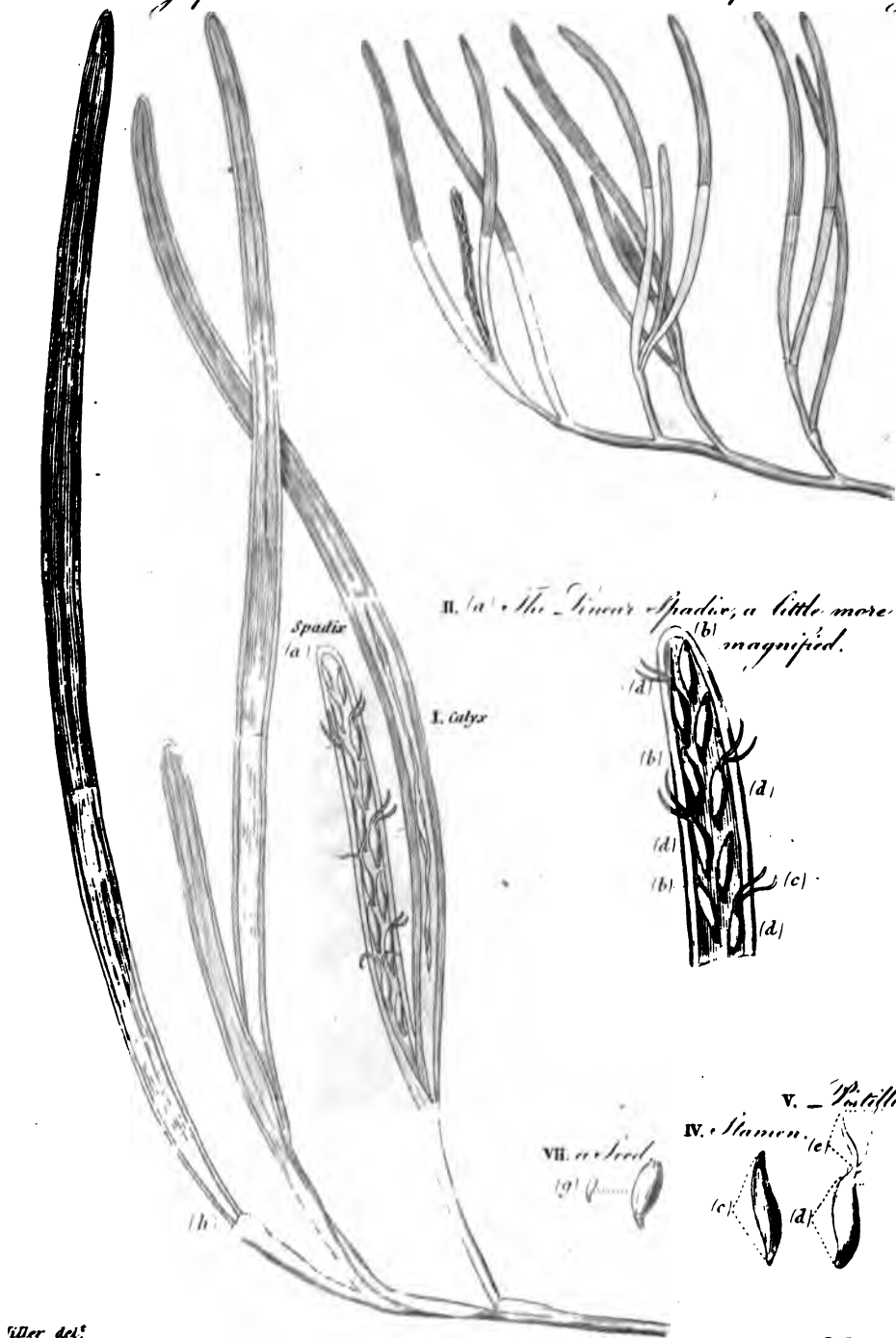
Thomson sculp.



EX. COMMON GRASS-WRACK.
(*Zostera Marina*.)

do magnified.

A branch of the *Zostera* of the natural size



Willer del.

Parks sculp.

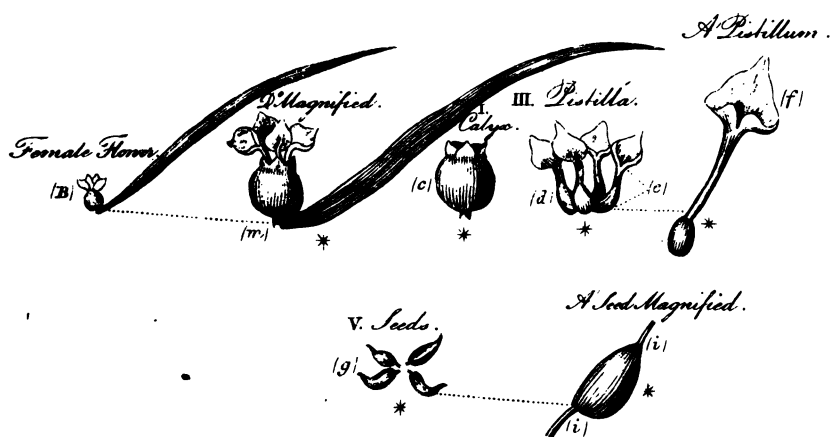
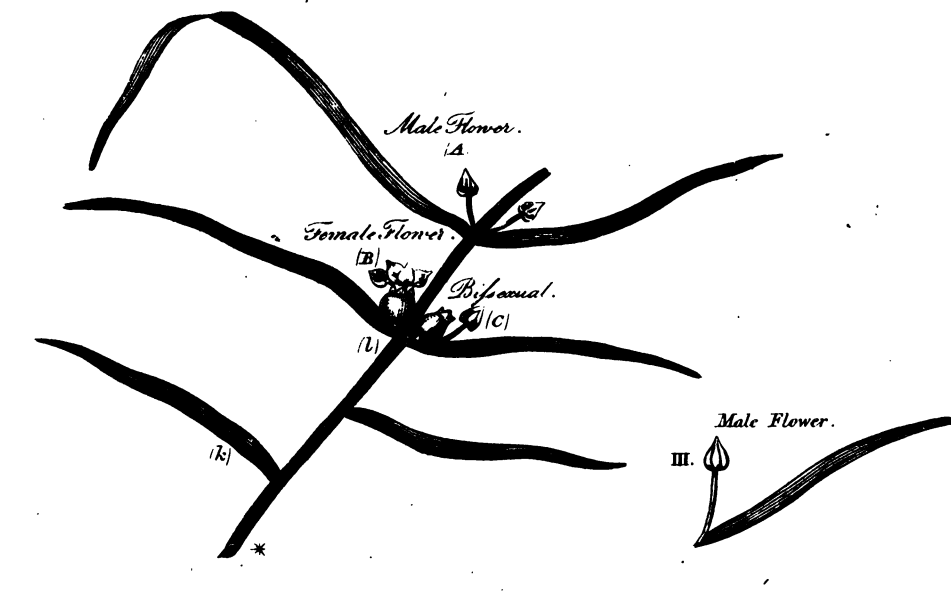
London, Published by D. Thornton, Jan'y 1, 1812.



EX. MARSHY POND-WEED.

(*Zannichellia Palustris.*)

Bisexual & Unisexual Flowers.



r del.

Parks sculp.

London, Published by D. Thornton, Jan. 1. 1812.

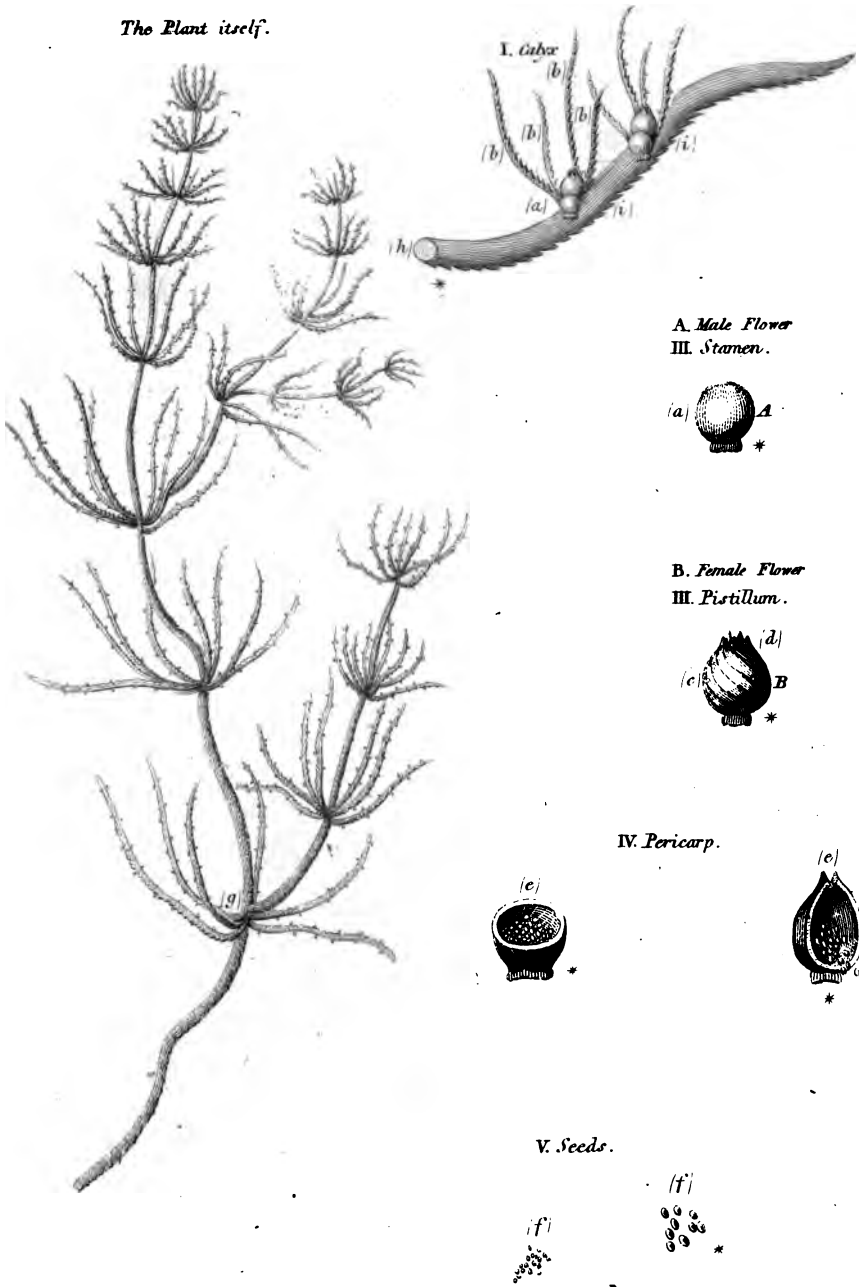


EX. COMMON STONE-WORT.

(*Chāra Vulgāris.*)

A leaf magnified.

The Plant itself.



Miller del.

Thomson sculp.

London, Published by D. Thornton, Jan. 1. 1812.

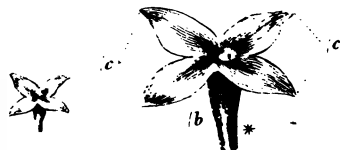


EX. COMMON PRIVET.
(*Ligustrum Fulgare.*)

I. Calyx.



II. Corolla.



III. Stamina.



IV. Pistillum.



V. Pericarp.



VI. Seed.



Warne

A Branch



Miller del.

London. Published by D^r Thornton, Jun^r 1, 1812.



KX. GERMANDER SPEEDWELL.

(*Veronica Chamædrys.*)

A Cutting



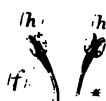
I. Calyx.



II. Corolla.



III. Stamina.



IV. Pistillum.



V. Pericarp.



VI. Seeds.



del.

Thomson sculp.

London, Published by D. Thornton, Jan. 1812.



One-stamened Willow.

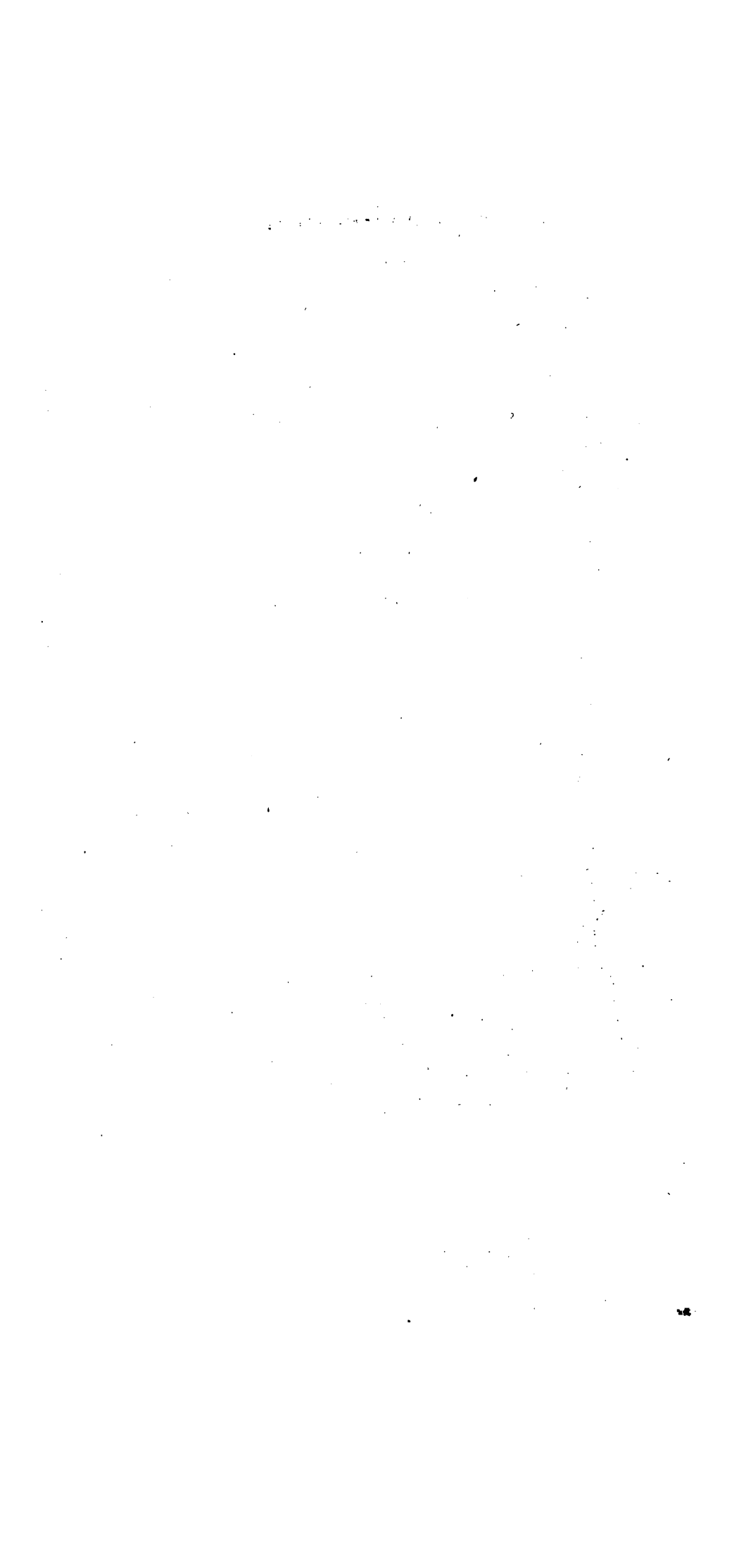
(*SALLY MONANDRA.*)

The Male Flowers.

The Female Flowers.



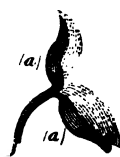
(Flower unisexual.)



EX. COMMON BLADDER-WORT.

(*Utricularia Officinālis*.)

I Calyx.

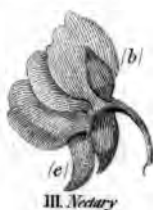


The Herb



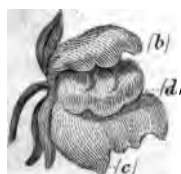
II Corolla

Flower, Back View.



III. Nectary

Front View.



IV. Stamina.



V. Pistillum.



VI. Pericarp.



VII. Seeds.



Thomson.

London, Published by D. Thornton, Jan^y 1, 1812.



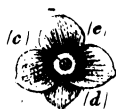
VI. GERMANDER SPEEDWELL.

(*Veronica Chamædrys.*)

I. Calyx.



II. Corolla.



III. Stamina.



IV. Pistillum.



V. Pericarp.



VI. Seeds.



Willer del.

Thomson sculp.

London, Published by D. Thomson, Janr 1812.



EX. OFFICINAL VERVAIN.

(*Verbena Communis.*)

A. Bruch.



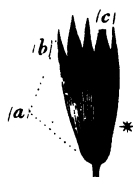
A Flower.



D^c magnified.



I. Calyx.



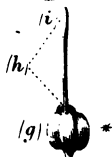
II. Corolla.



III. Stamina.



IV. Pistillum.



VI. Seeds.



V. Caps.



Thomson sculp^t

Published by D^r Thornton, Jan^y 1812.



EX. EUROPEAN GYPSY-WORT.

4. Shows the natural size.

A Branch.



D. Magnified.



I. Calyx.



II. Corolla.



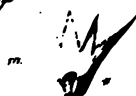
III. Stamina.



IV. Pistillum.



V. Calyx instead of Parsaep.



VI. Seed.



Lycopus Europæus.

Linn.

Müller del.

London. Published by W. Thornton, Jan. 1. 1812.



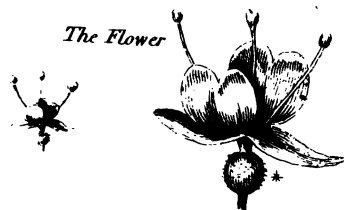
EX. COMMON ENCHANTER'S NIGHT-SHADE.

(*Græca Lutetiāna.*)



A. Cuming

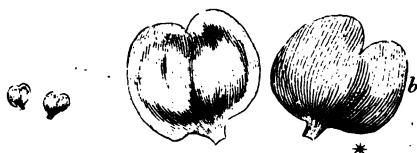
The Flower



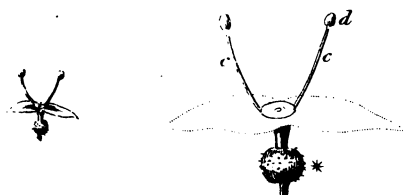
I. Calyx.



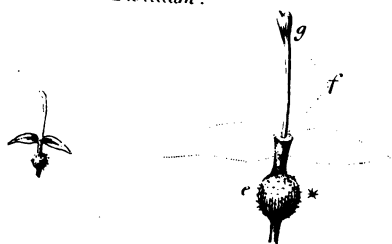
II. Corolla.



III. Stamina.



IV. Pistillum.



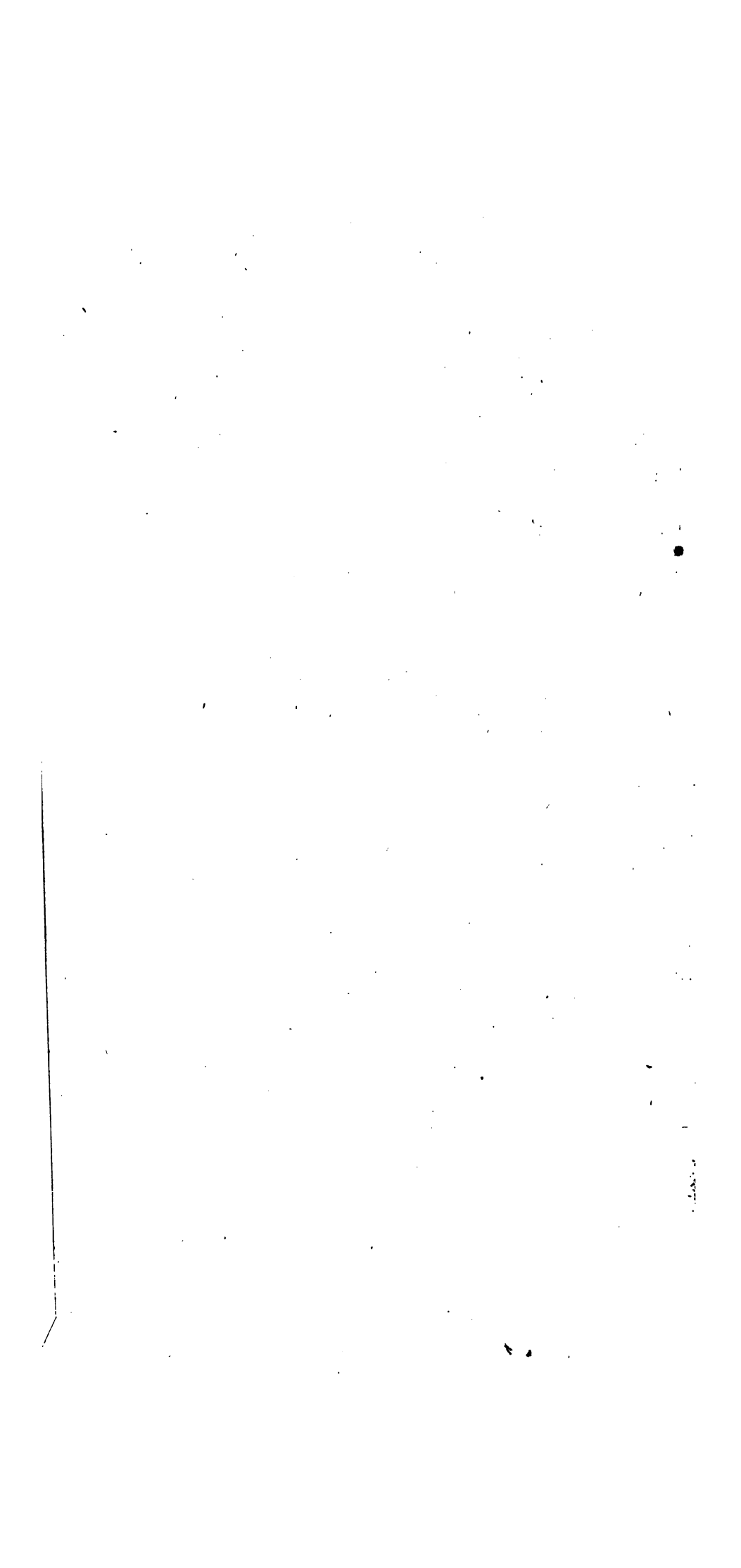
V. Pericarp.



VI. Seeds.



Thomson sculp.



EX. OFFICIAL Vervain.

(Verbena Communis.)

A Bruch.



A Flower.



D^c magnified.



I. Calyx.



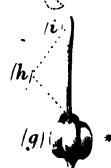
II. Corolla.



III. Stamina.



IV. Pistillum.



VI. Seeds.

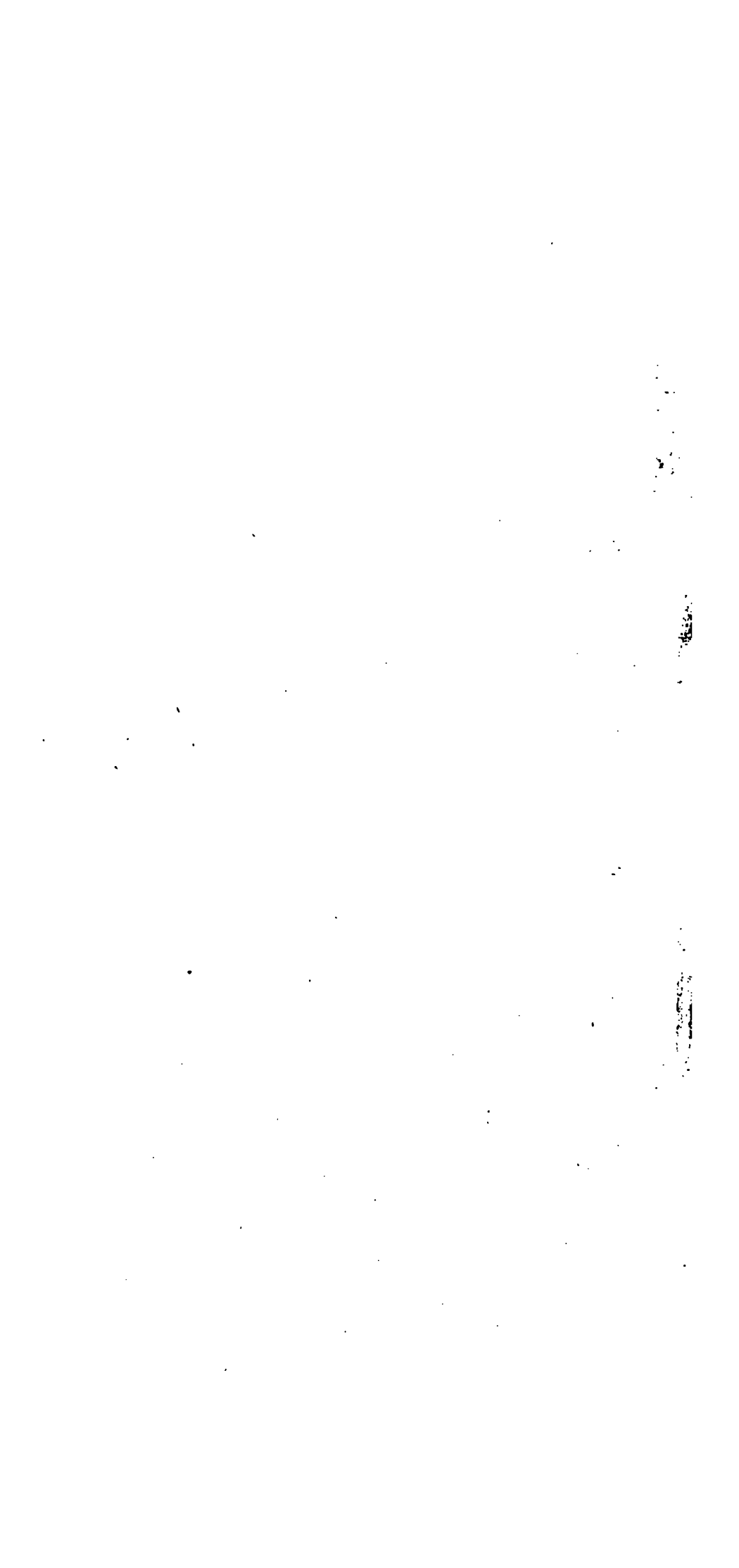


V. Calyx.



Thomson sculp^t

Published by D^r Thomson, Jan^y 1812.



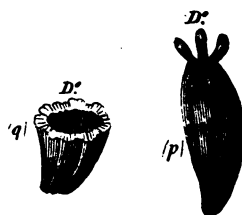
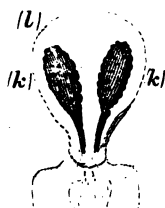
EX. BROAD LEAVED ORCHIS.

Part of the Plant.

(*Orchis Latifolia.*)



III. Nectary.



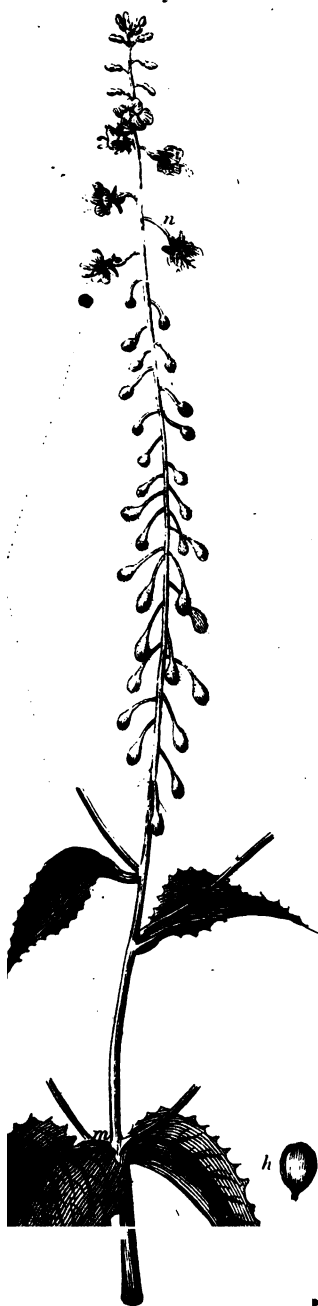
*Thomson sculp.*⁴



EX. COMMON ENCHANTER'S NIGHT-SHADE.

(*Atropa Lutea*.)

A. Cutting



Willd. del.

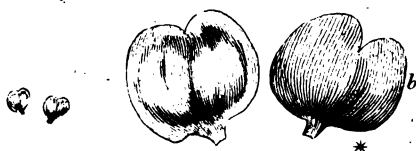
The Flower



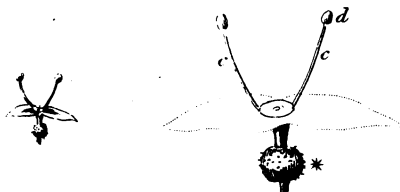
I. Calyx.



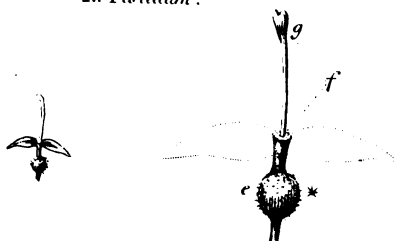
II. Corolla.



III. Stamina.



IV. Pistillum.



V. Pericarp.



VI. Seeds.



Thomson sculp.

London. Published by D. Thornton, Jan. 1. 1812.



EX. SWEET-VERNAL-GRASS.

(*Anthoxanthum*.)



a Flower.



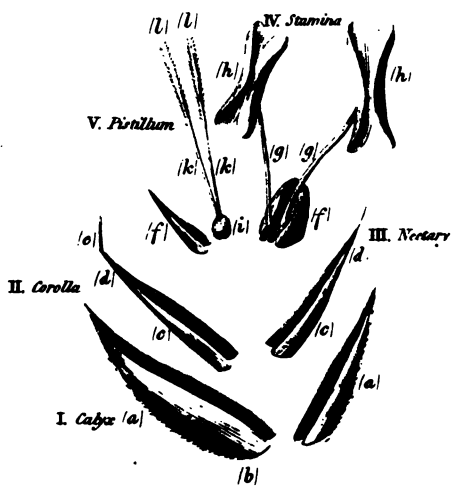
D^o magnified.



D^o expanded.



D^o dissected.



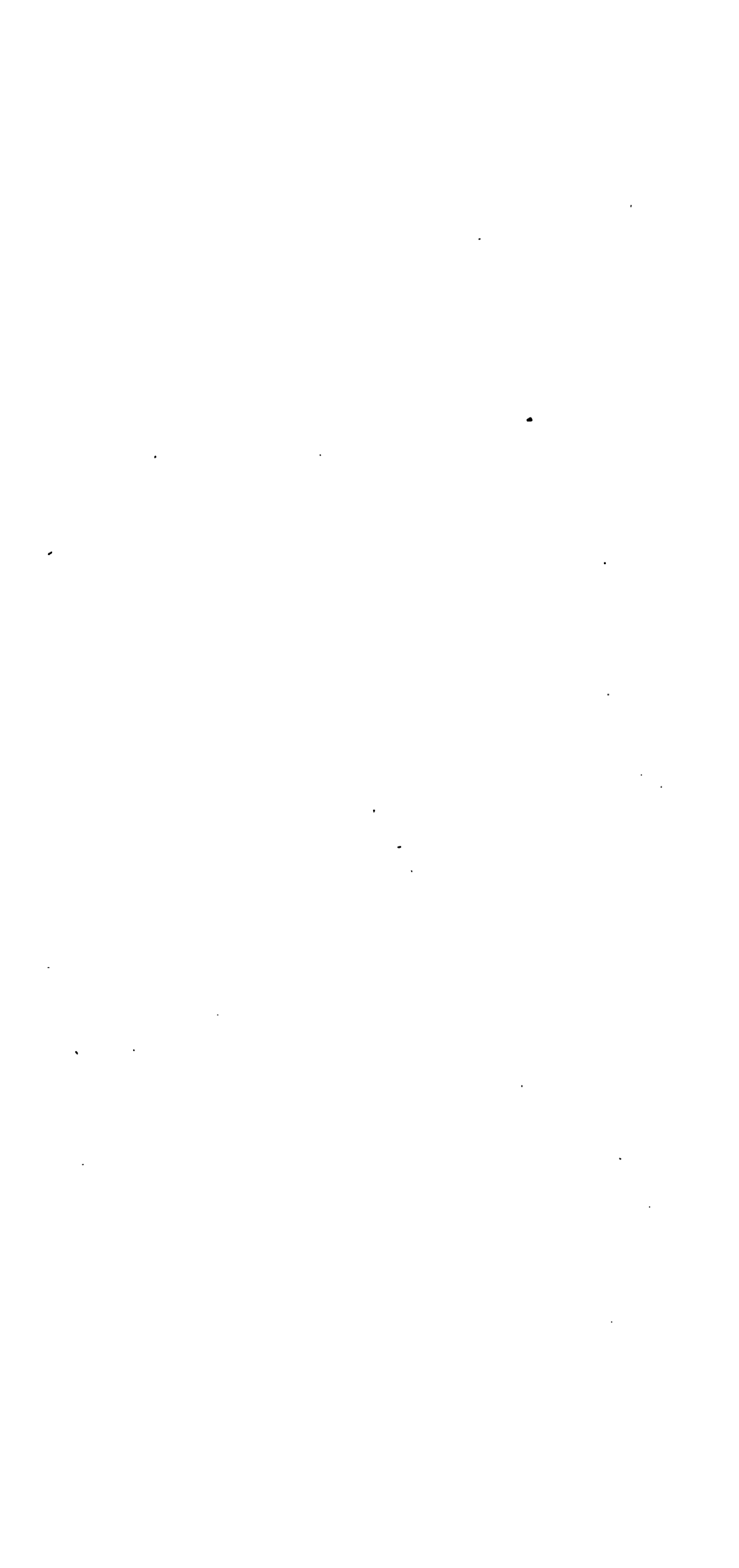
VII. Seed.

VI. Pericarp



Thomson sculp.

London, Published by D. Thomson, Jan 1. 1821.

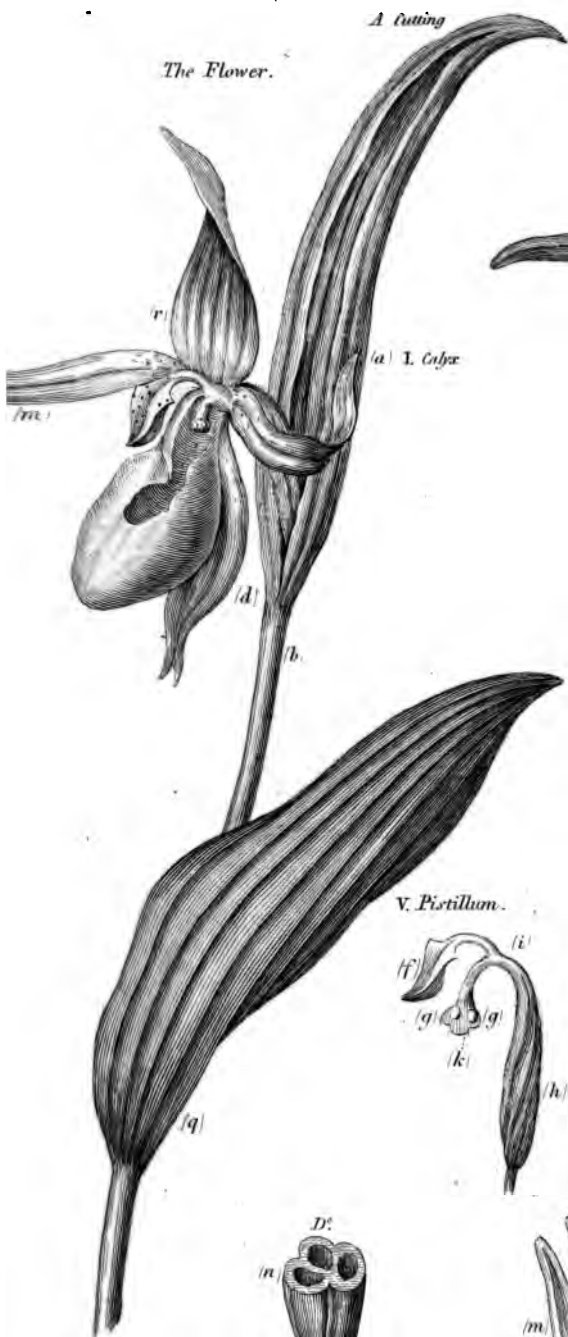


EX. COMMON LADIES-SLIPPER.

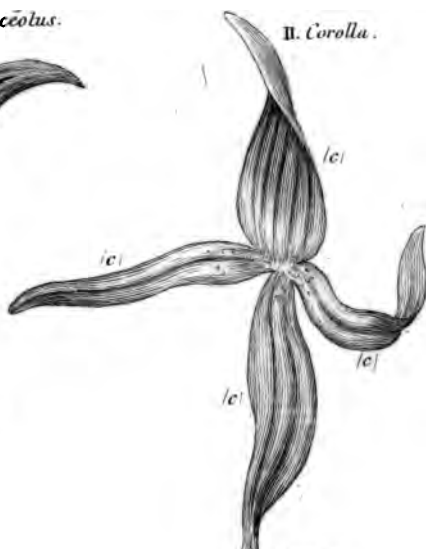
Cypripedium Calceolus.

A Cutting

The Flower.



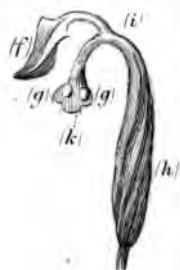
II. Corolla.



III. Nectary.



V. Pistillum.



VI. Pericarp.



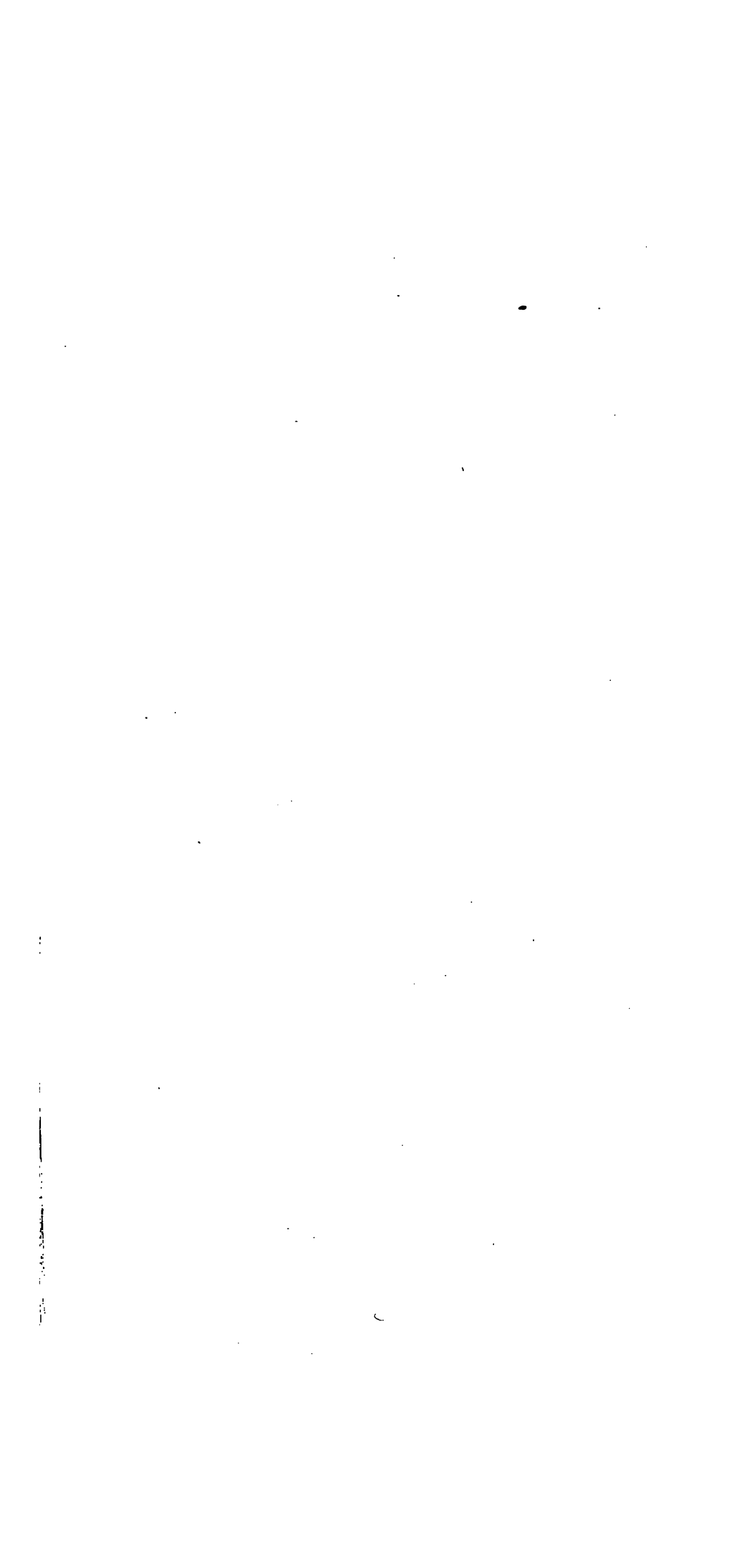
VII. Seeds.



Miller del.

Thomson sculp.

London, Published by D. Thornton, Jan^y 1. 1812.



EX. MALAXIS.

Flower magnified.

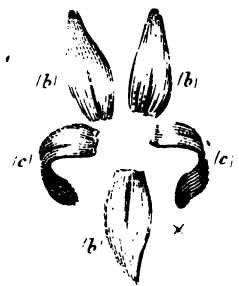
Back View.



Front View.



II. Corolla.



IV. & V. Stamina & Pistillum.

III. Nectary.



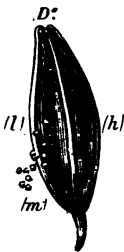
The Herb



VI. Pericarp.



VII. Seeds.



Uer del.

Thomson sculp.

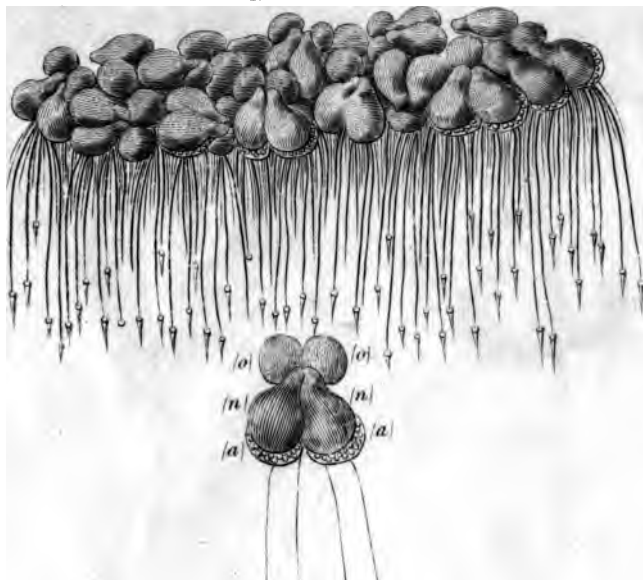
London, Published by D^r Thornton, Jan^y 1, 1812.



EX. LESSER DUCKS-MEAT.

(*Lemna Minor.*)

The Plants



[A] Male Flower.



Flower imperfect. Stigma defective.



I. Calyx.



[B] Female Flower.



Flower perfect.



IV. Pericarp.



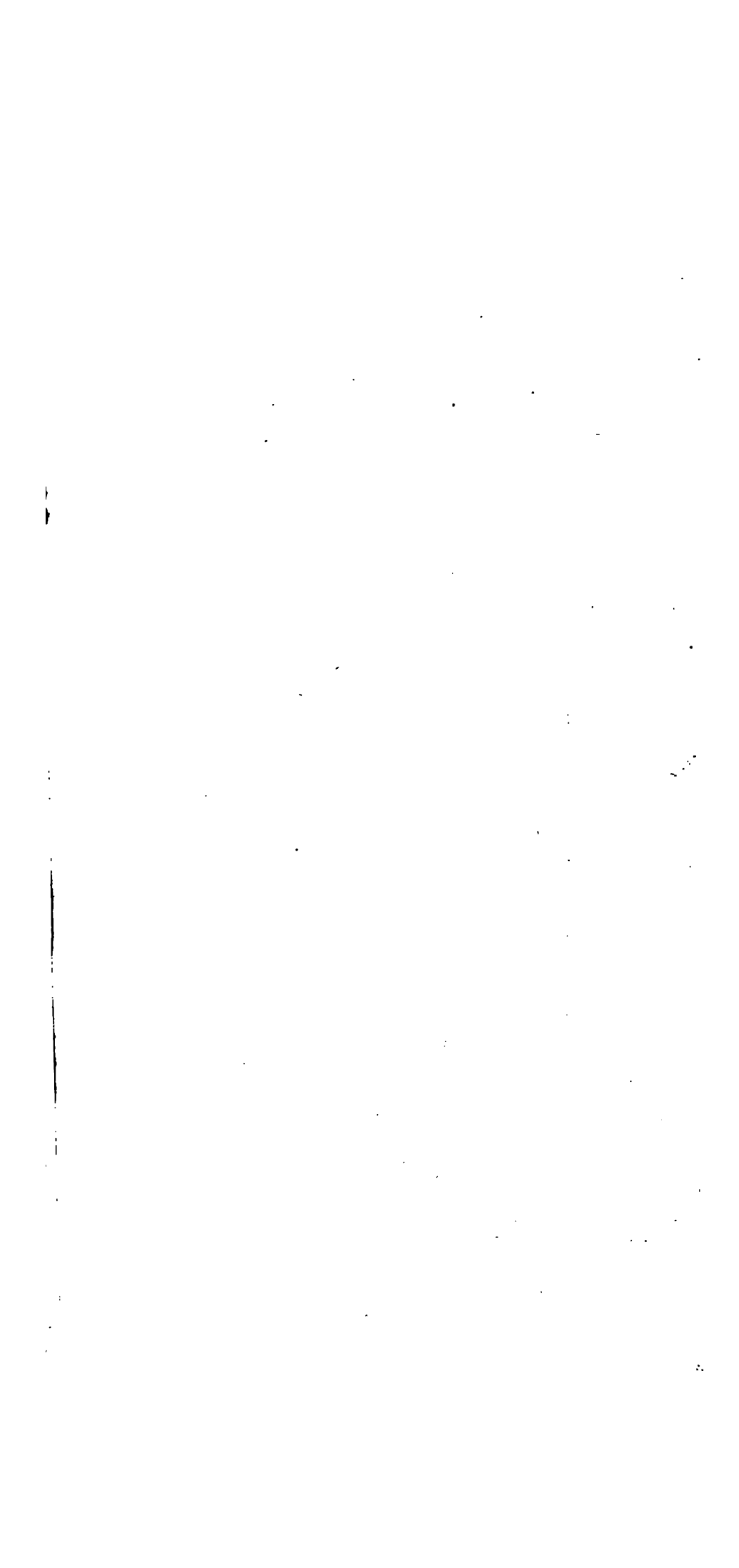
V. Seeds.



Thomson sc

Her del.

London, Published by D. Thornton, Jan^r 1812.



EX. CRACK WILLOW.

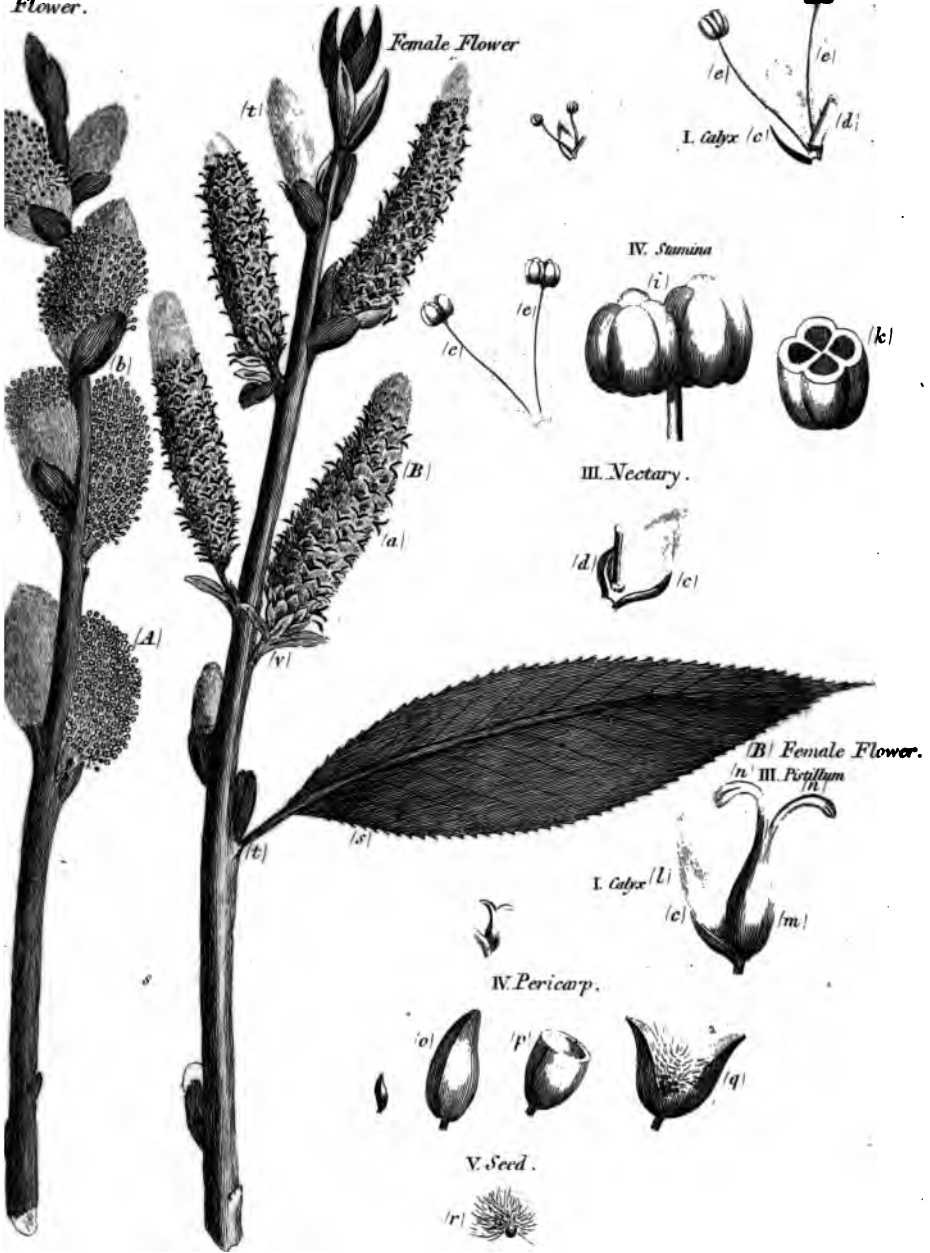
(*Salix Fragilis.*)

(A) Male Flower.

Flower.

Branches

Female Flower



Ver del.

Mazel sculp.

London, Published by D. Thornton, Jan. 1, 1812.



EX. MALAXIS.

Flower magnified.

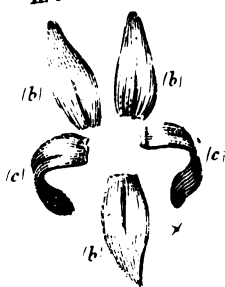
Back View.



Front View.



II. Corolla.



IV. & V. Stamina & Pistillum.



III. Nectary.



The Herb



VI. Pericarp.



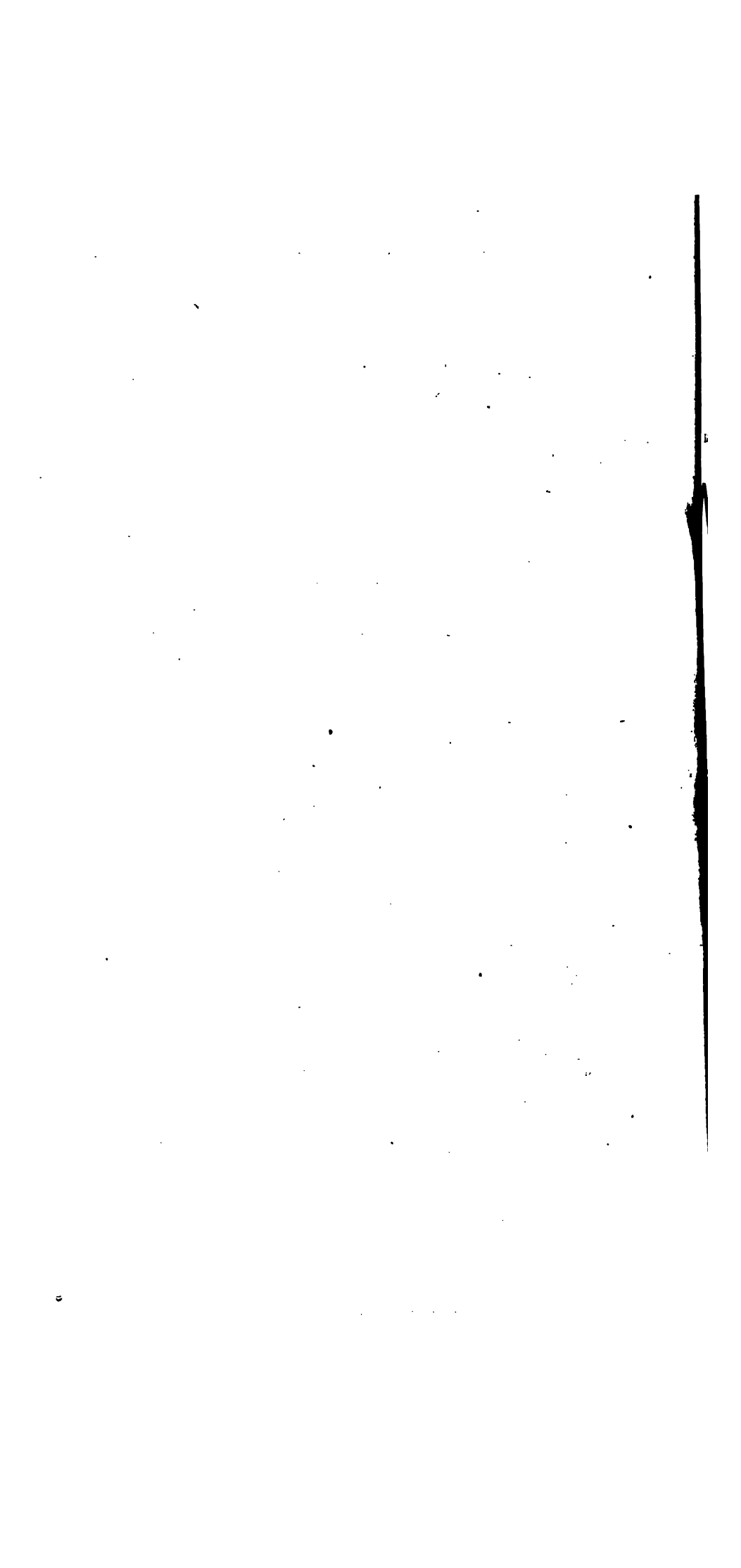
VII. Seeds.



Thomson

Miller del.

London, Published by D. Thomson, Jan. 1. 1812.



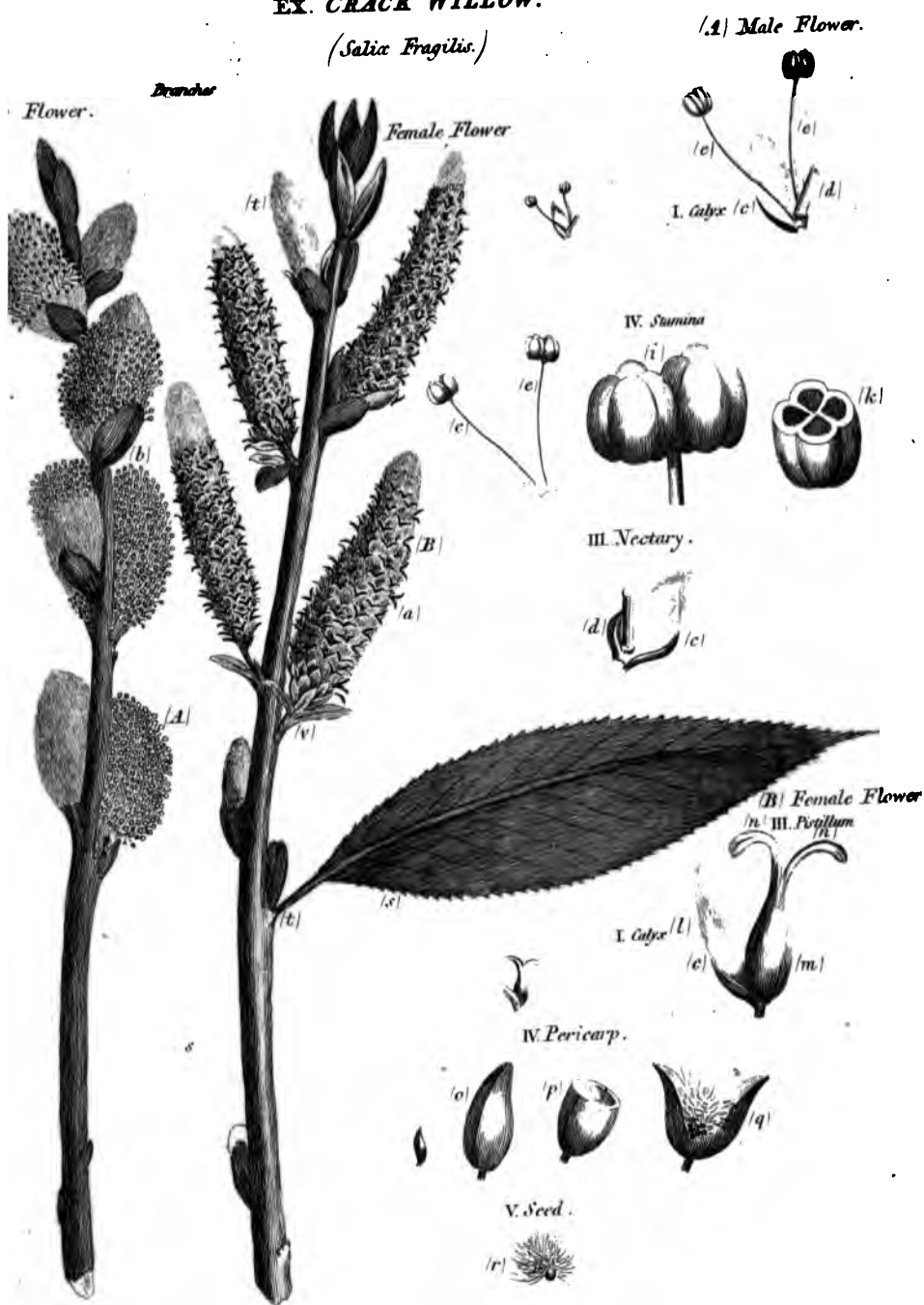
EX. SPRING CROCUS.
The Herb
(Crocus Vernus.)



London, Published by D^r Thornton, Jan^r 11812.

EX. CRACK WILLow.

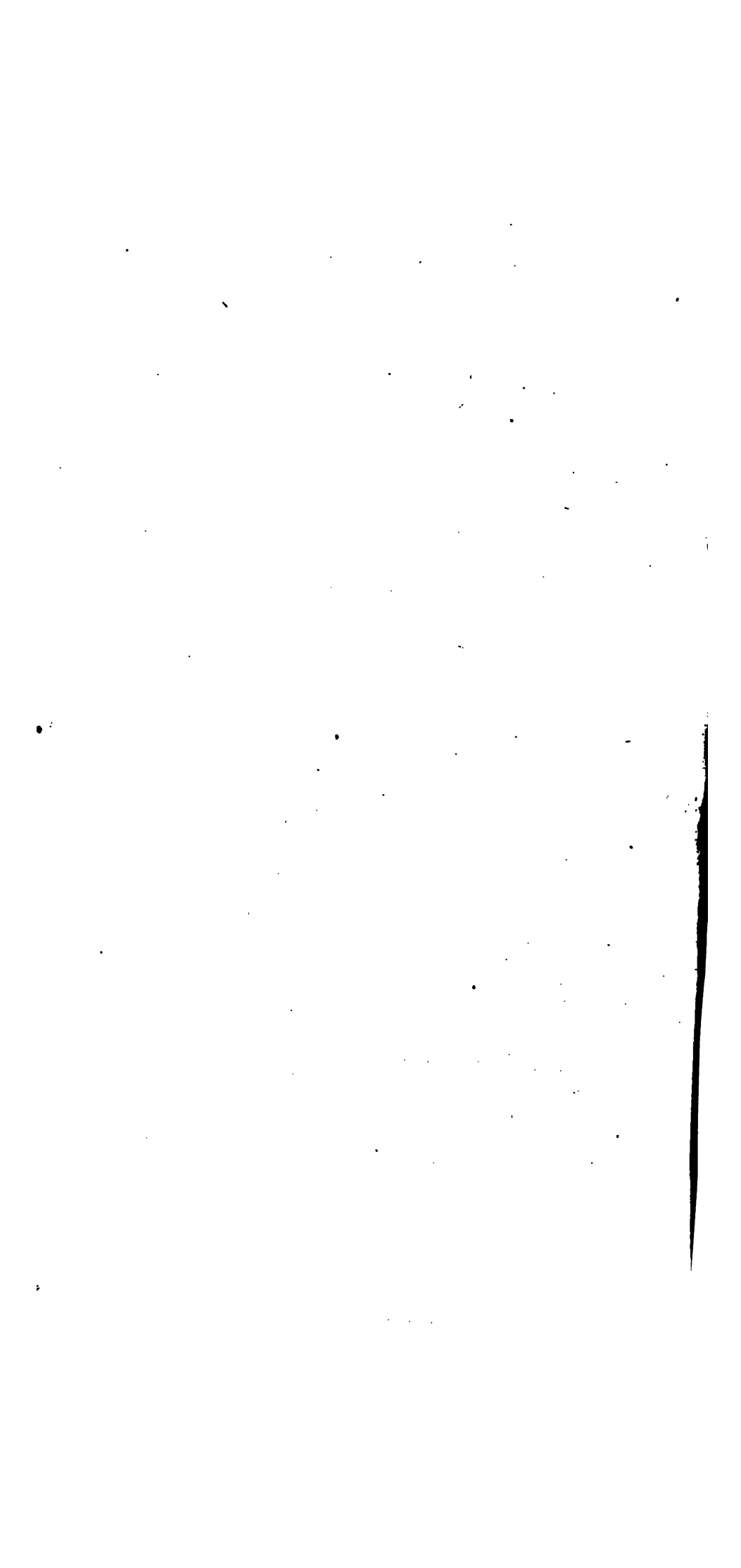
(*Salix Fragilis.*)



Miller del.

Mazel sculp.

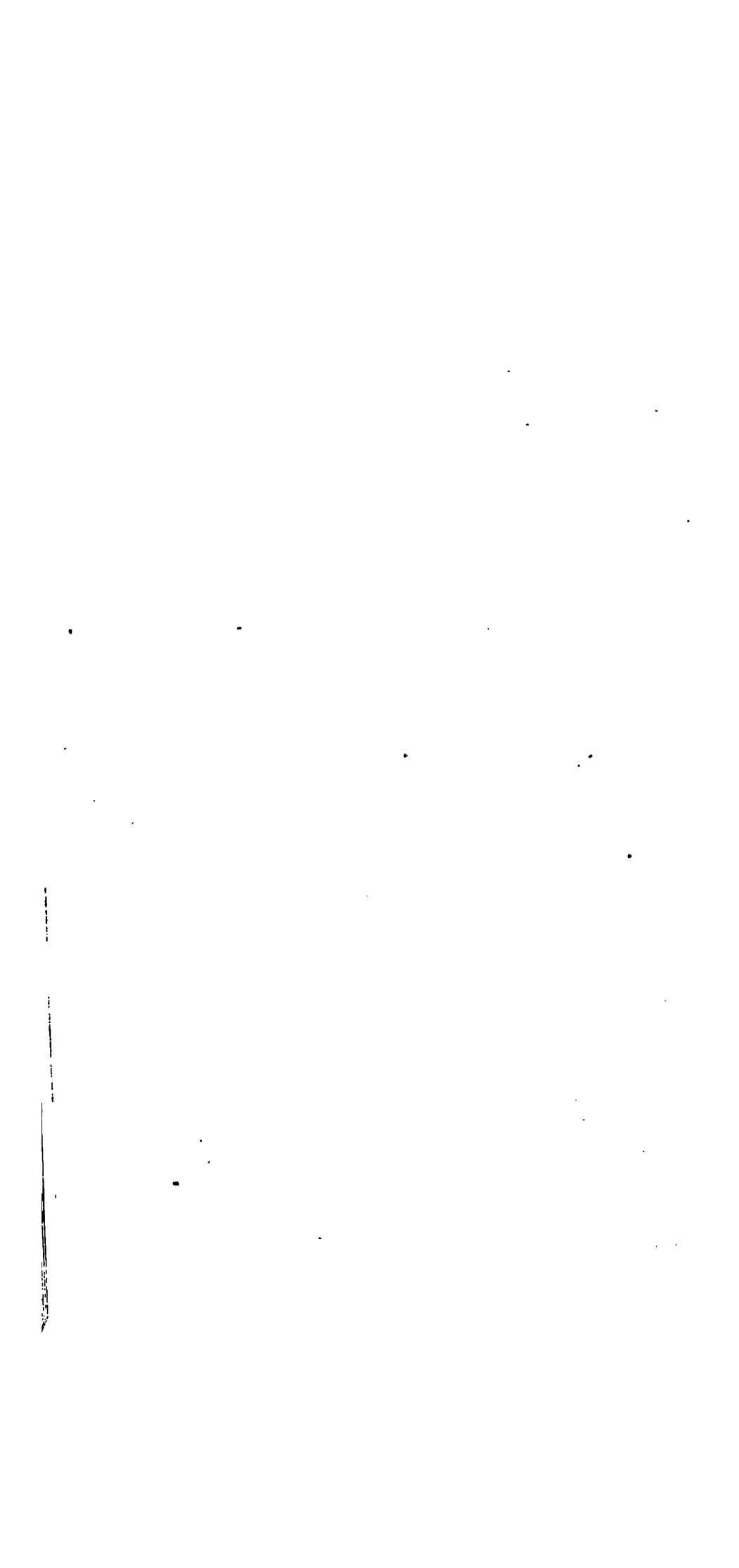
London, Published by D^rThornton, Jan^r 1812.



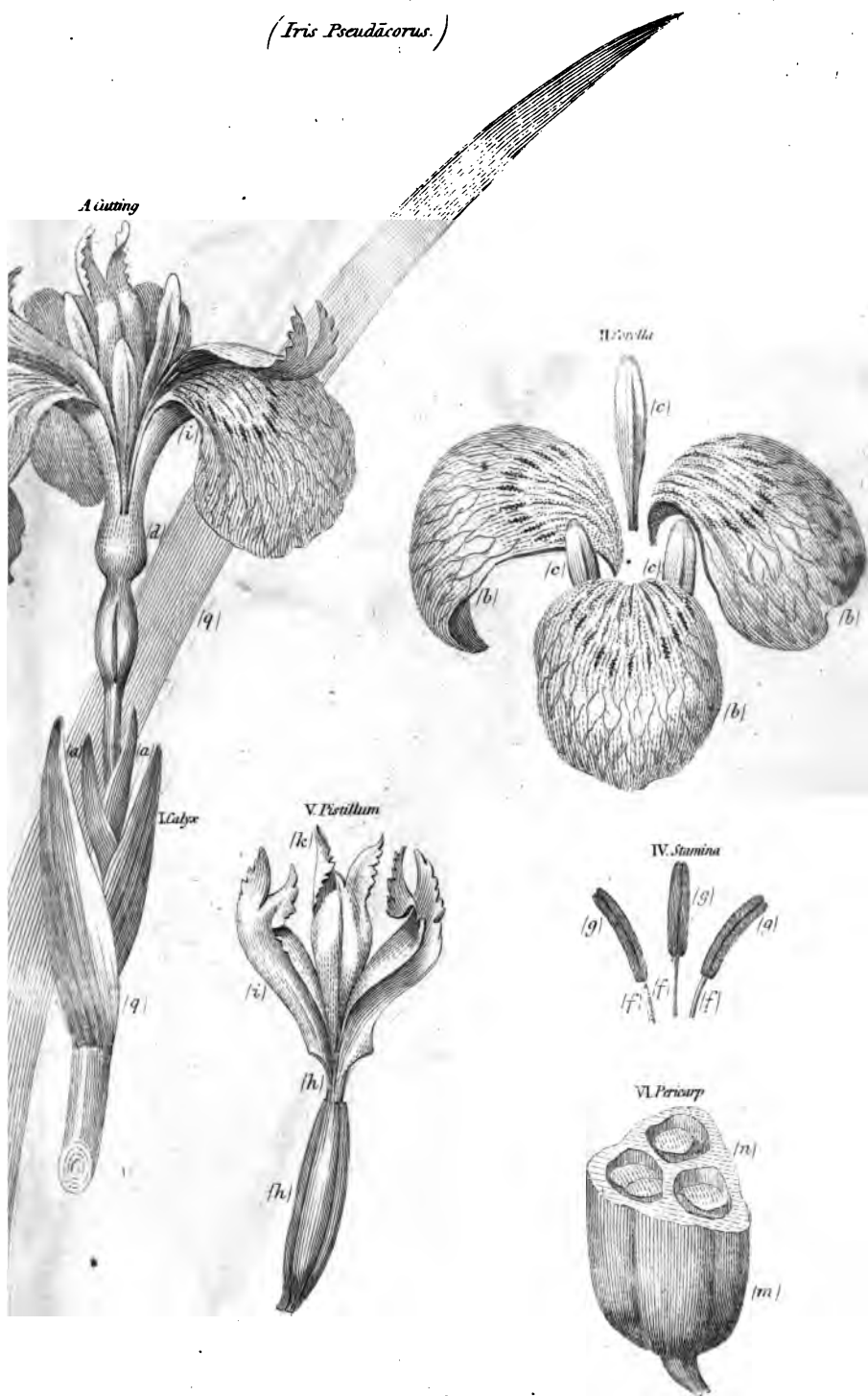
EX. SPRING CROCUS.
The Herb
(Crocus Vernus.)



London, Published by D. Thornton, Jan. 1812.



EX. YELLOW FLAG.
(Iris Pseudācorus.)



del.

VII. Seeds
(P)

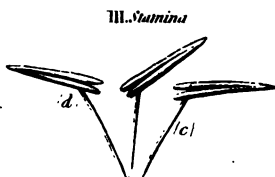
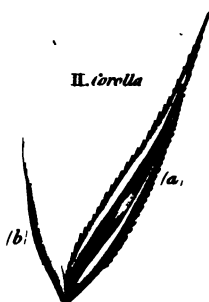
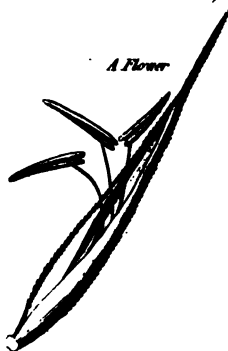
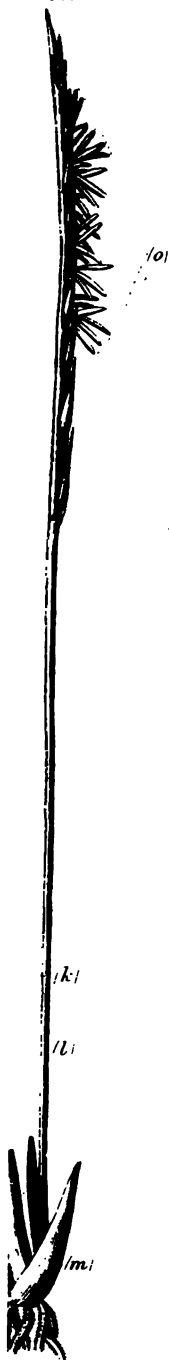
Thomson sculp.

London, Published by D. Thomson, Jan^y 1, 1812.

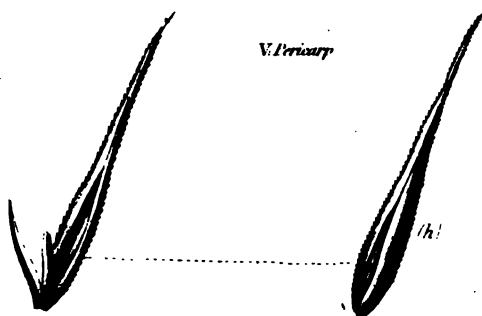
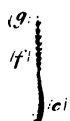
The Herb

EX. MAT - GRASS.

(*Nardus Stricta.*)



IV. Pistillum



VI. Seed



24

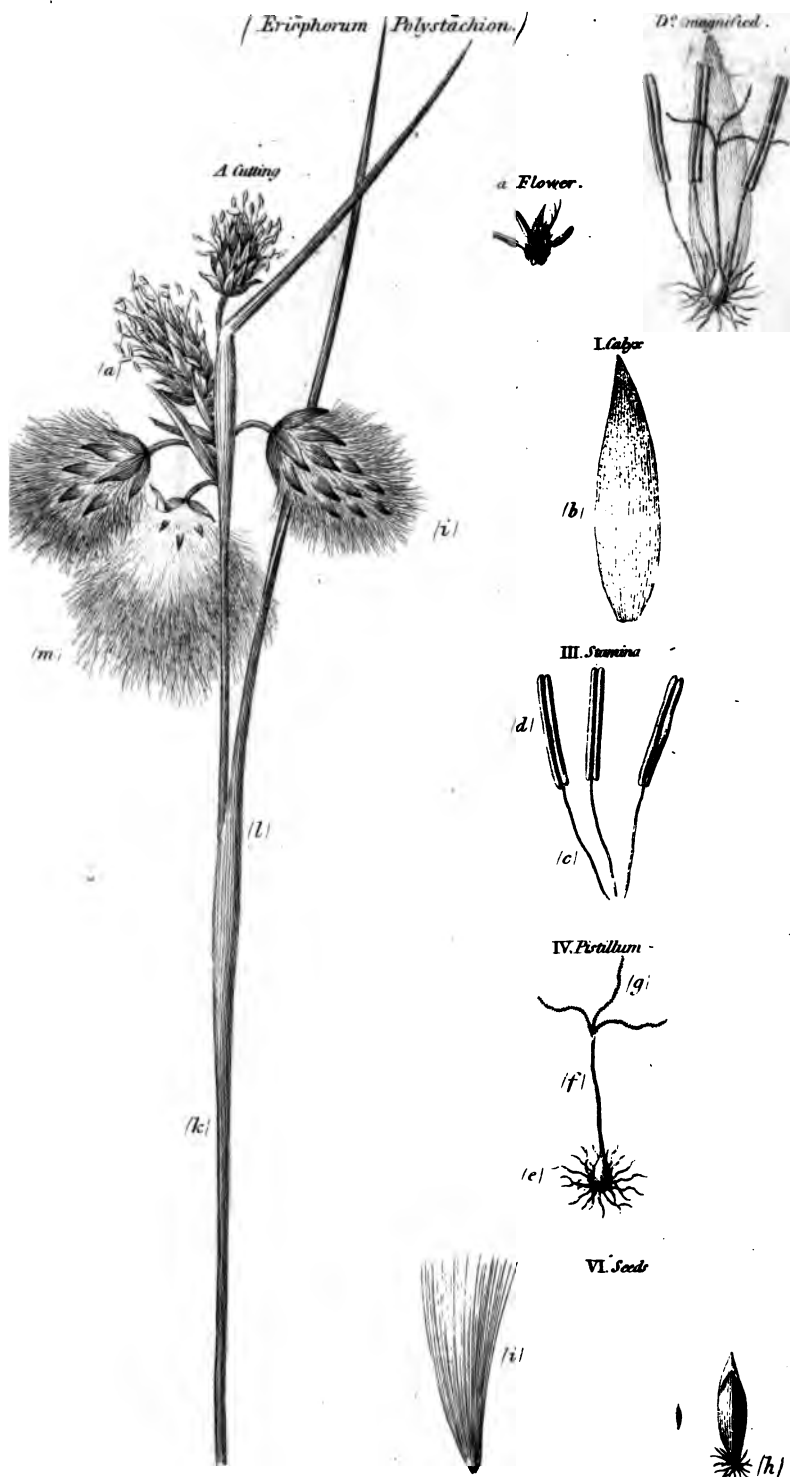
Mazel sculp.

London, Published by W. Thornton, Jan. 7. 1812.

EX. BROAD-LEAVED COTTON-GRASS.

(*Eriophorum Polystachion.*)

D? magnified.



London, Published by D. Thomson, Janr, 1812.



EX. COMPRESSED BOG-RUSH.

Acutina (*Schœnus Compressus*.)



I. Calyx



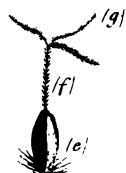
II. Corolla



III. Filaments



IV. Germen



V. Seed

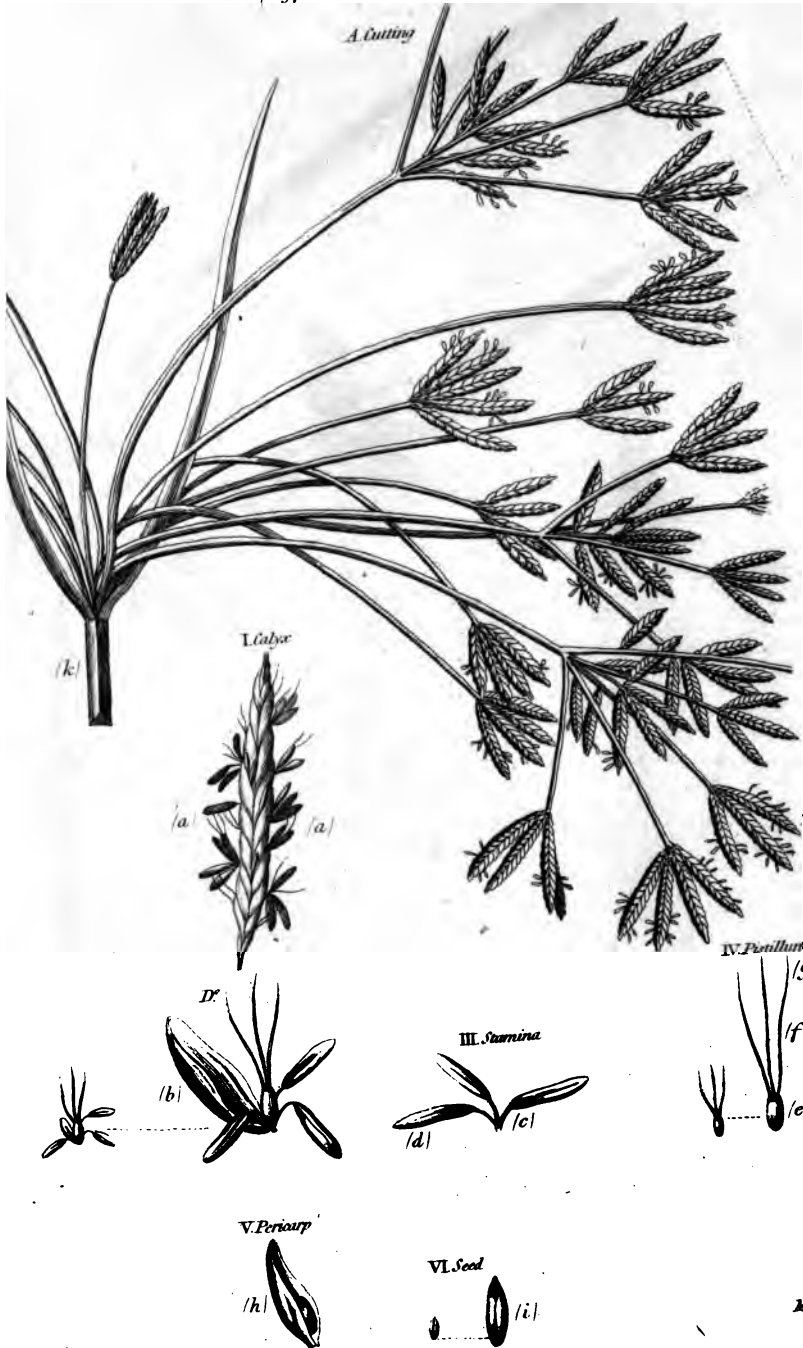


Mazel sculp.



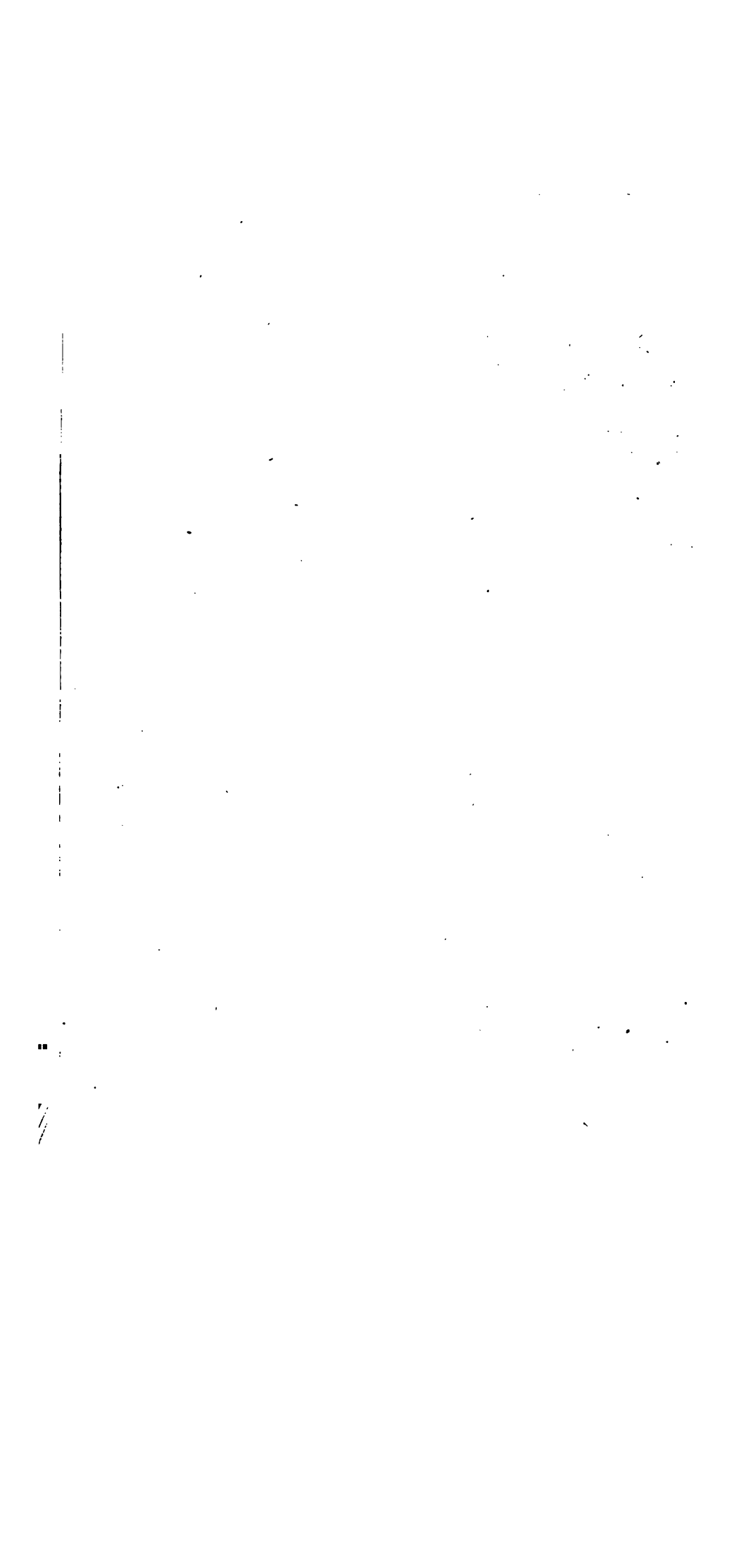
EX. SWEET CYPERUS.

(*Cyperus Longus.*)



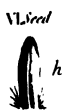
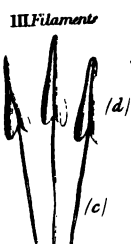
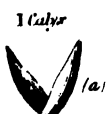
Uer del.

London, Published by D. Thornton, Jan. 21, 1811.



EX. COMPRESSED BOG-RUSH.

Acutina (*Schævus Compressus*)



Her del.

Mazel sculp.

London, Published by D. Thornton, Jan'y 1, 1812.



EX. GREEN PANICK-GRASS.

(*Panicum Viride.*)

A. Cutting.



A Flower



I. Calyx



II. Corolla



III. Stamina



IV. Pistillum



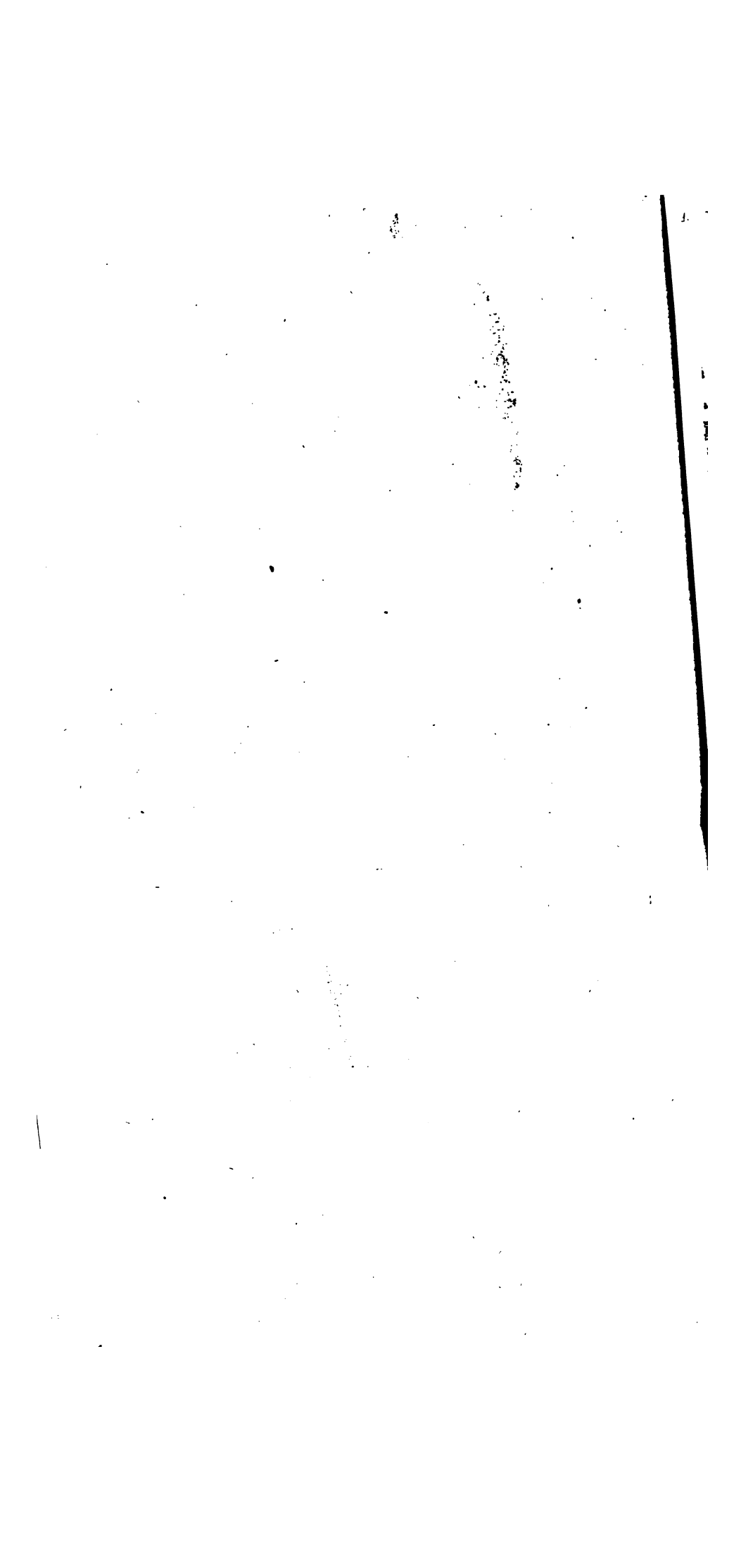
V. Pericarp



VI. Seed



Mazol sculp.



EX. SLENDER FOXTAIL-GRASS.

A. Canine

(*Alopecūrus Agrāstis.*)



I. Calyx



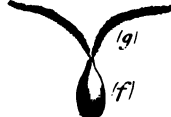
II. Corolla



III. Stamina



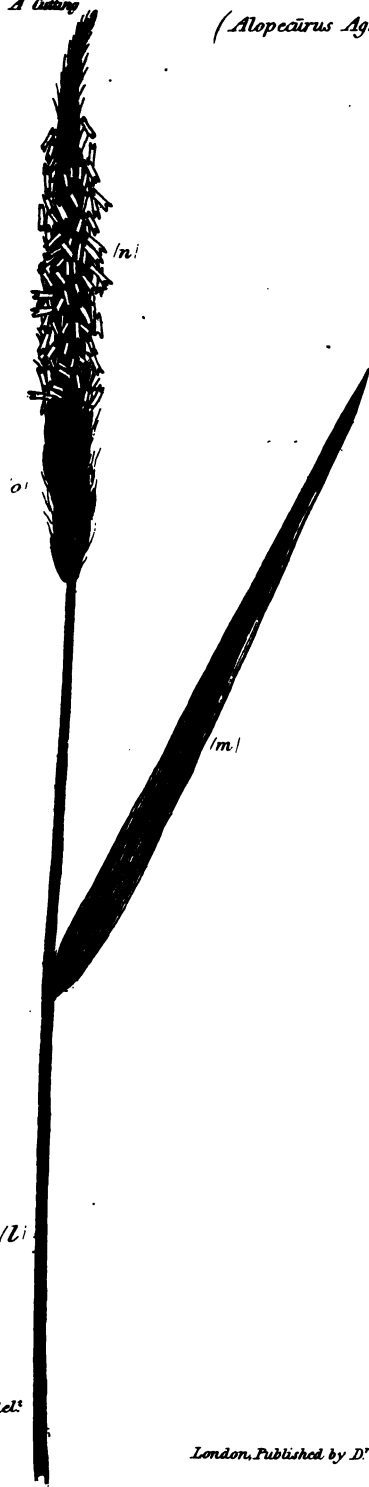
IV. Pistillum



V. Pericarp



VI. Seed



Ver del.

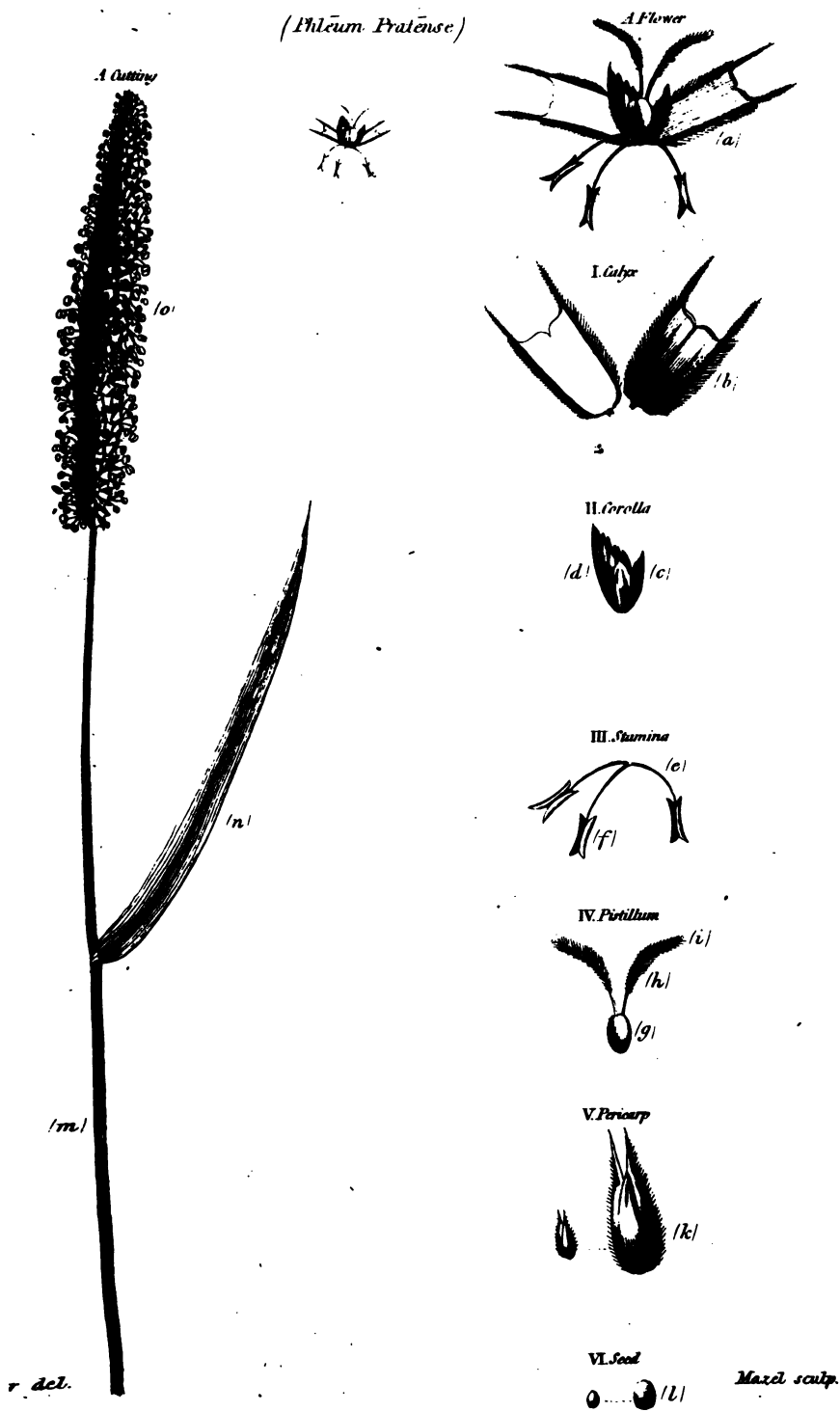
Mazd sculp.

London, Published by D. Thornton, Jan. 1. 1812.



EX. COMMON CAT'S - TAIL - GRASS.

(*Phleum Pratense*)



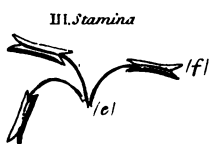
London, Published by D. Thornton, Jan^y 1, 1812.



EX. MANURED CANARY-GRASS.

(*Phalaris Canariensis.*)

A. Cutting



VI. Seed

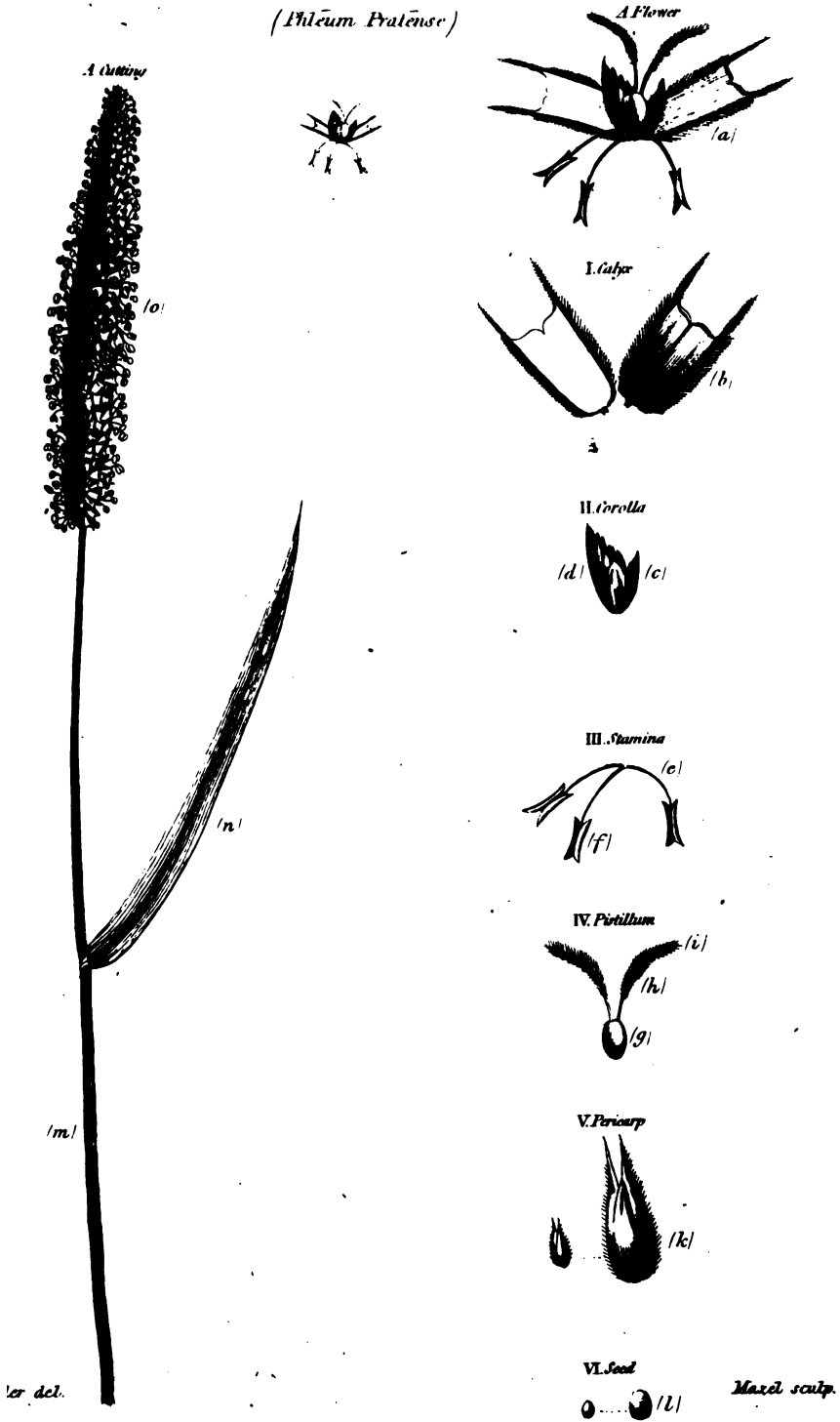
Mazel sculp.

London, Published by D. Thornton, Jan^y 1, 1812.



EX. COMMON CAT'S - TAIL - GRASS.

(*Phleum Pratense*)



London, Published by D. Thornton, Jan. 1. 1811.

EX. ROUGH COCKS-FOOT-GRASS.

(*Dactylis Glomerata*.)

I. *Calyx*



A. *Cutting*

(m)



II. *Corolla*



III. *Stamina*



IV. *Pistillum*



V. *Pericarp*



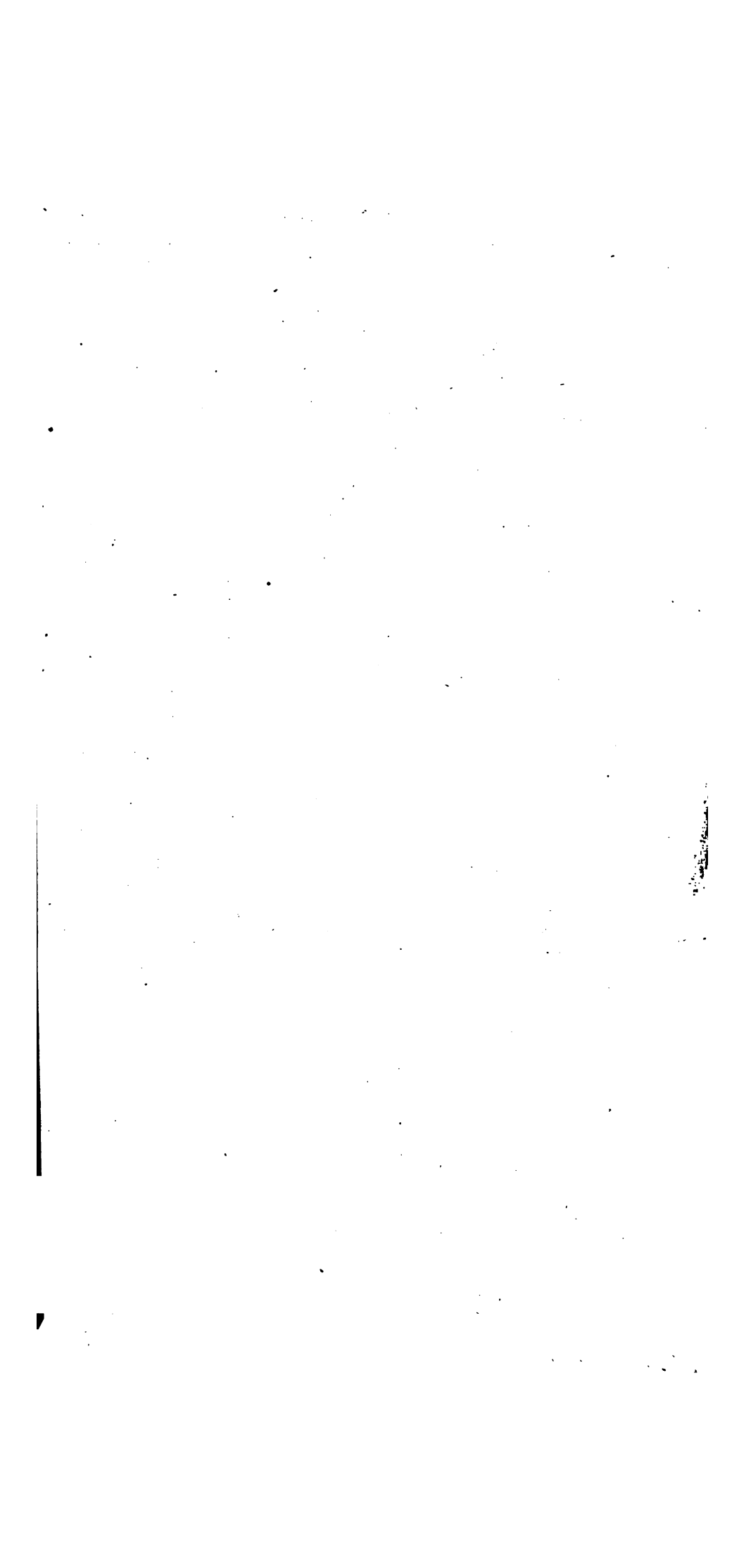
VI. *Seed*



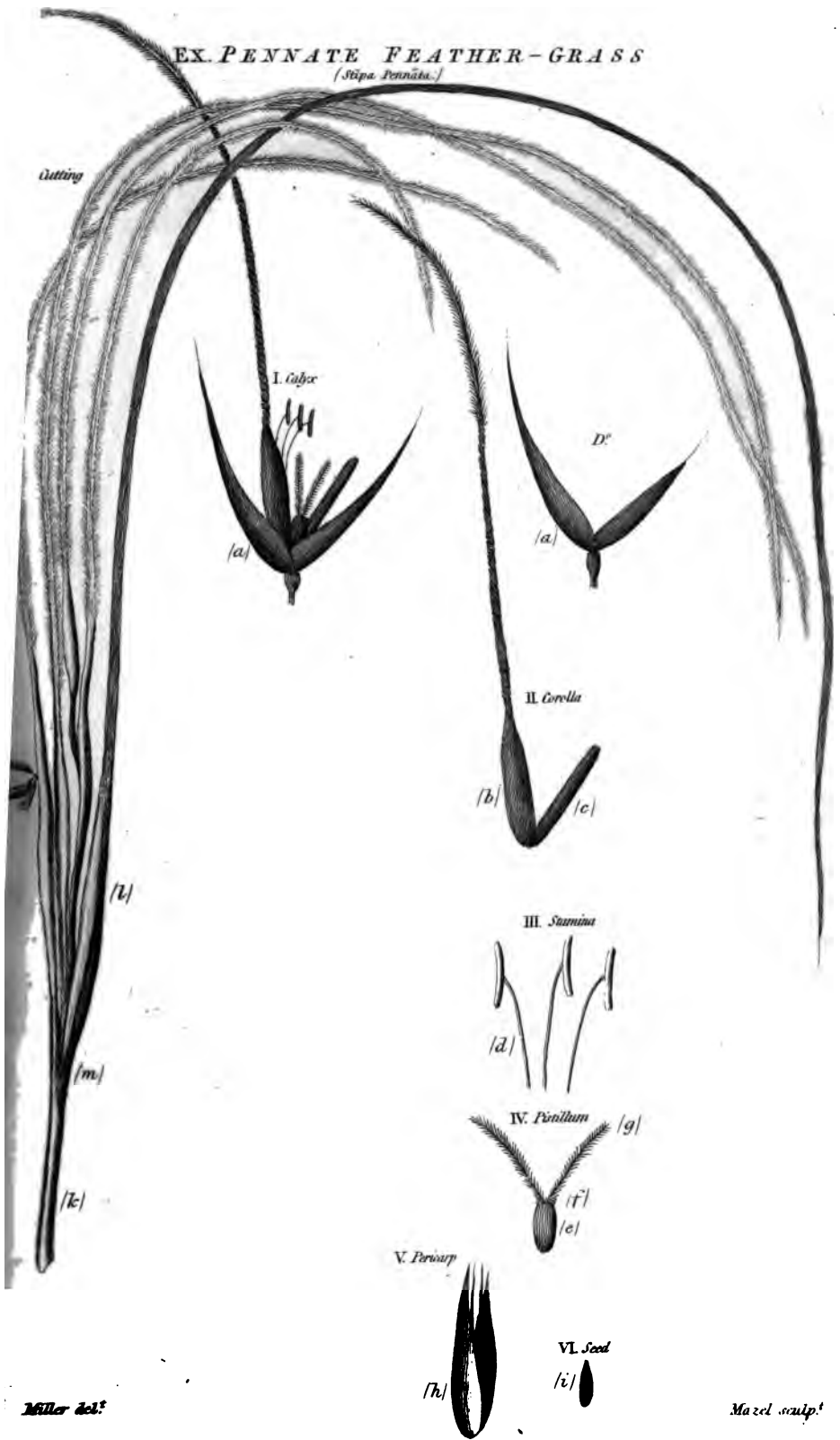
Maxwell sculp.

Miller del.

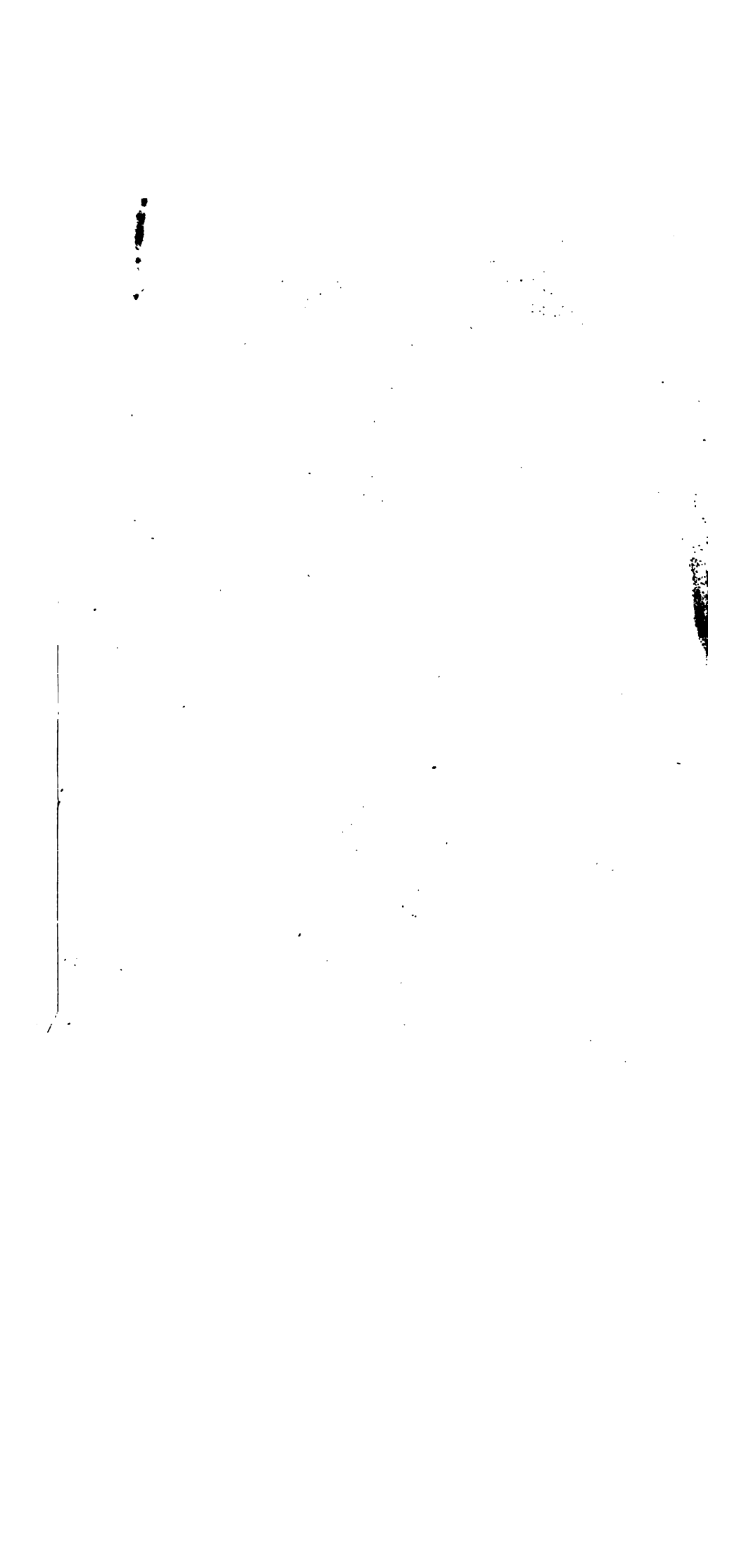
London, Published by D. T. Forster, Jan. 1812.



EX. PENNATE FEATHER-GRASS
(*Stipa Pennata*.)

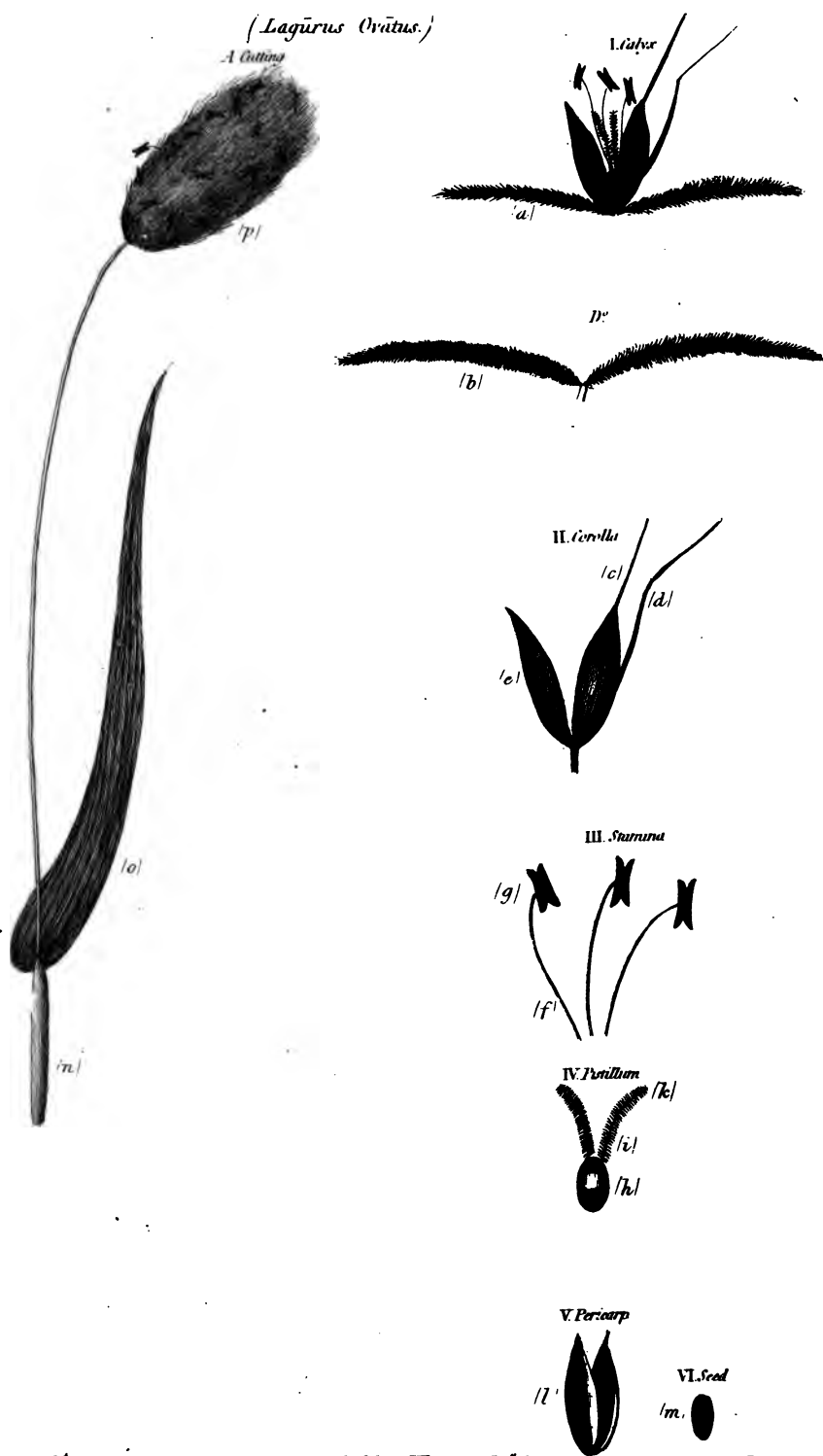


London, Published by D. Thornton, Jan. 2. 1812.



EX. OVATE HARE'S-TAIL-GRASS.

(*Lagurus Ovatus*.)



Her del.^t

London, Published by D. Thornton, Jan^y 1812.

Mazel sculp.^t



EX. SILVER HAIR-GRASS.

(*Aira Cariophyllæa*.)

Branch.



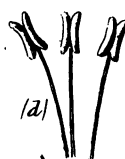
I. Calyx.



II. Corolla.



III. Stamina.



IV. Pistillum.



V. Pericarp.



VI. Seed.



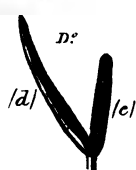
dieler del.^t

Mazel sculp.^t

London, Published by D. Thornton, Jan^y 1. 1812.



EX. UPRIGHT SEA-LYME-GRASS.



filler del.

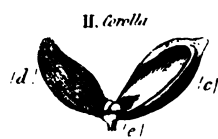
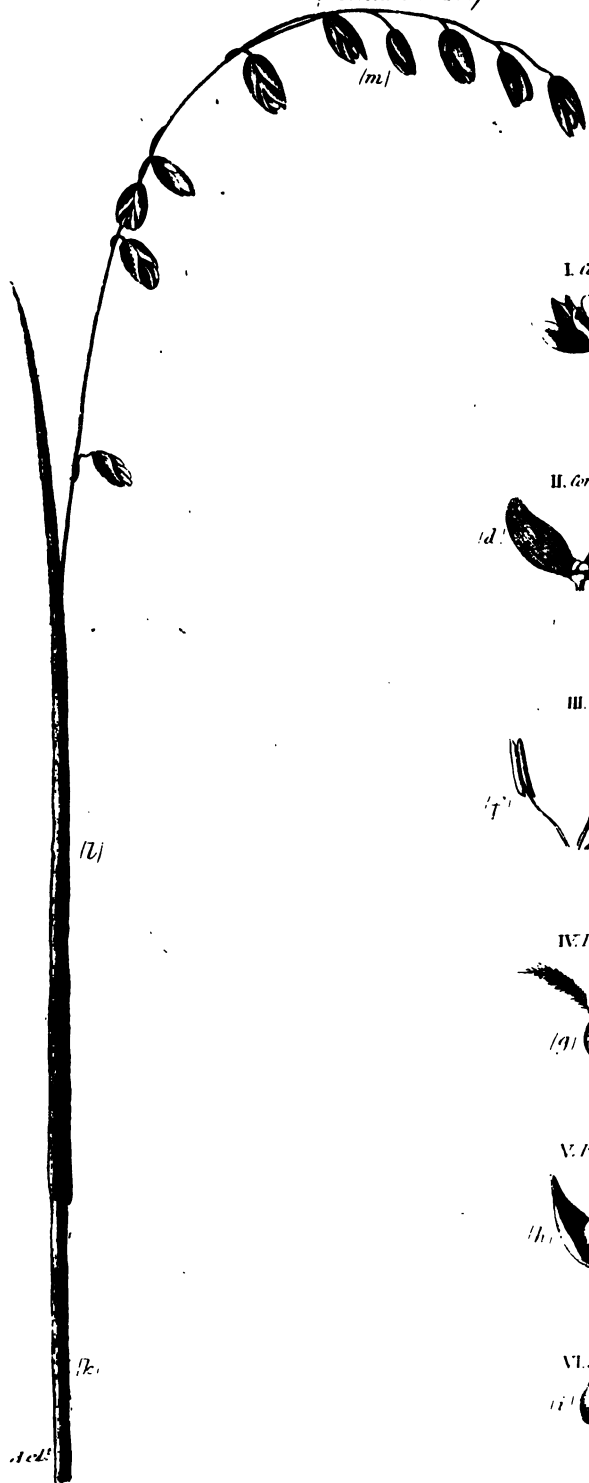
Mazel sculp.

21

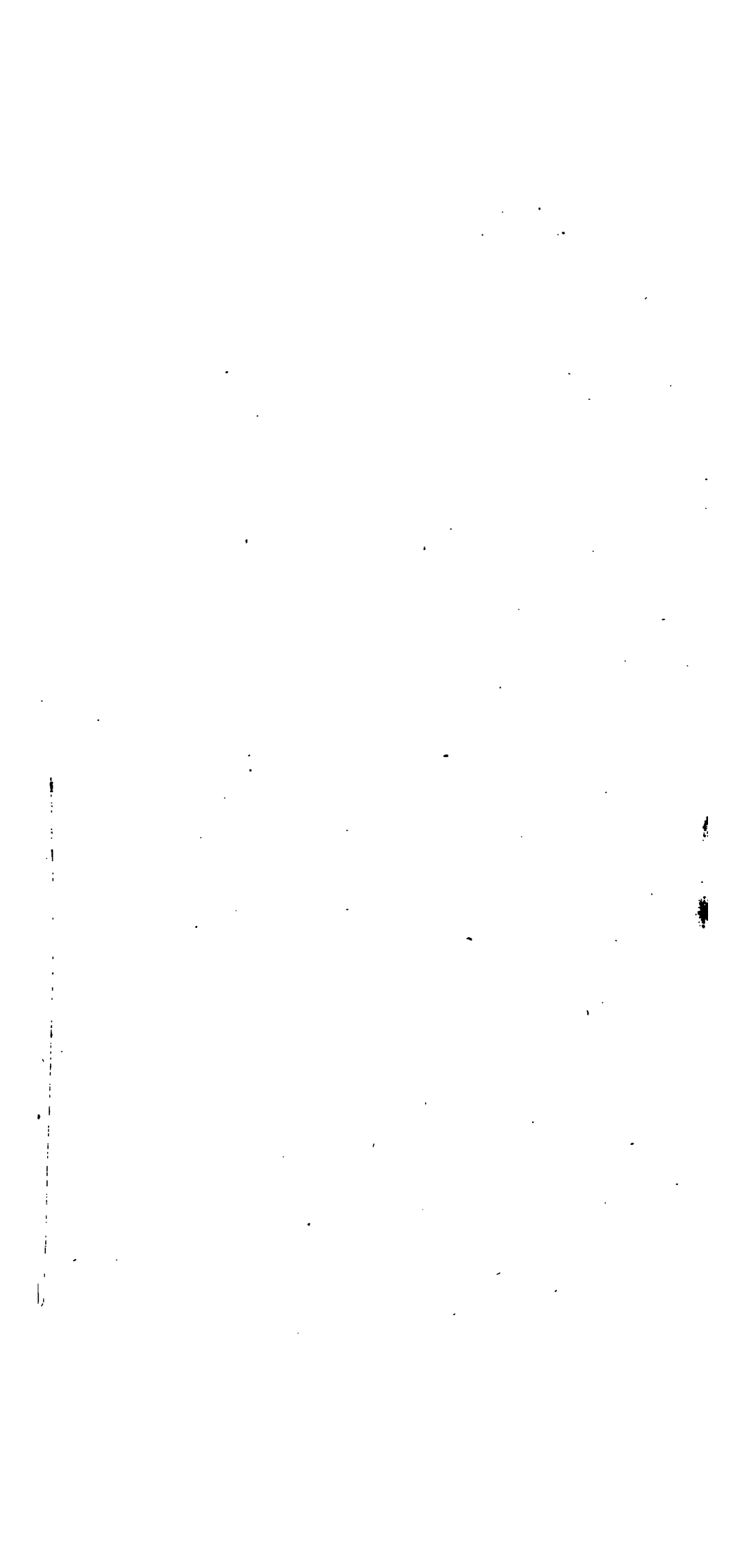


EX. MOUNTAIN MELIC-GRASS.

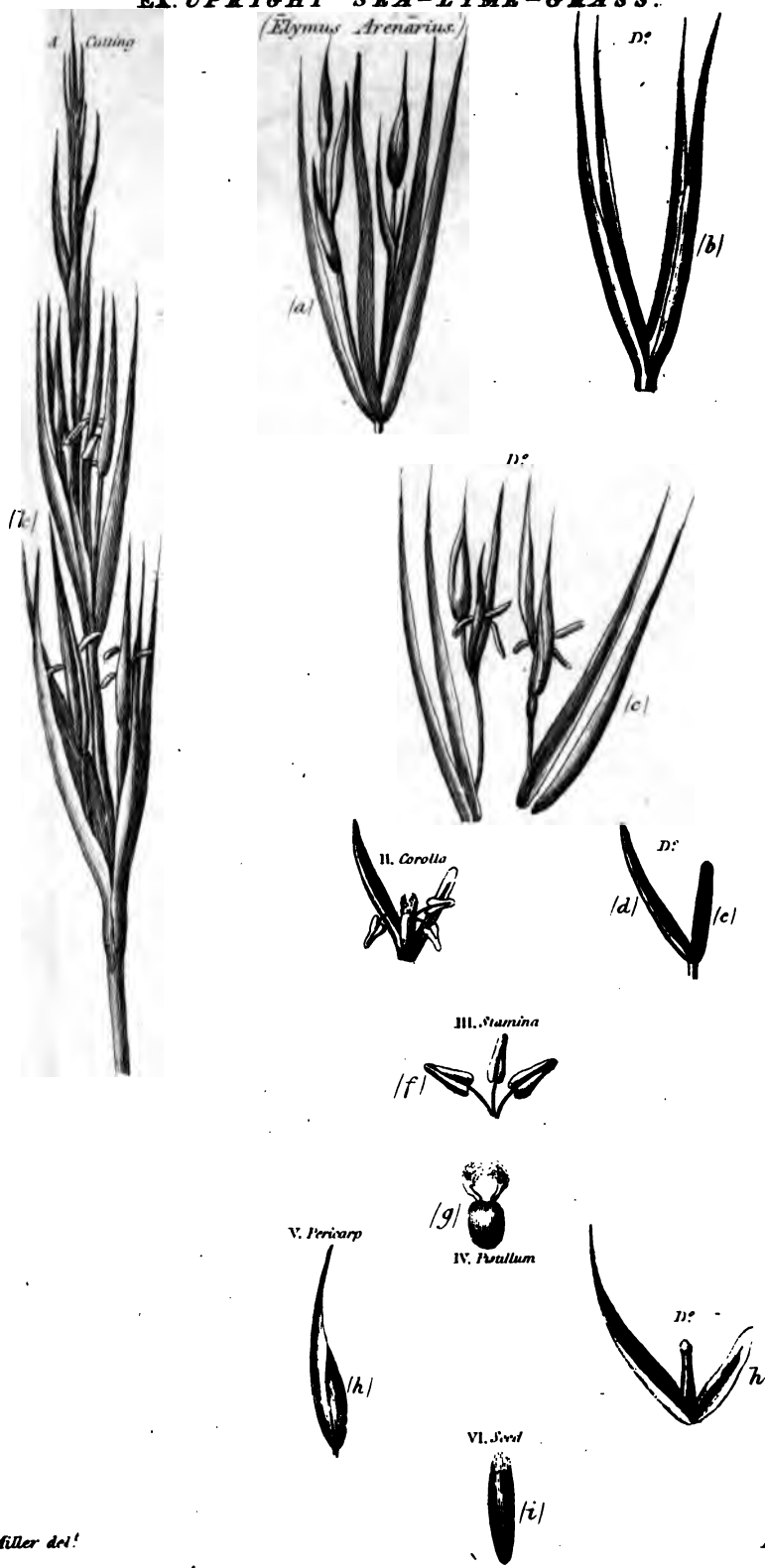
(*Melica Nutans.*)

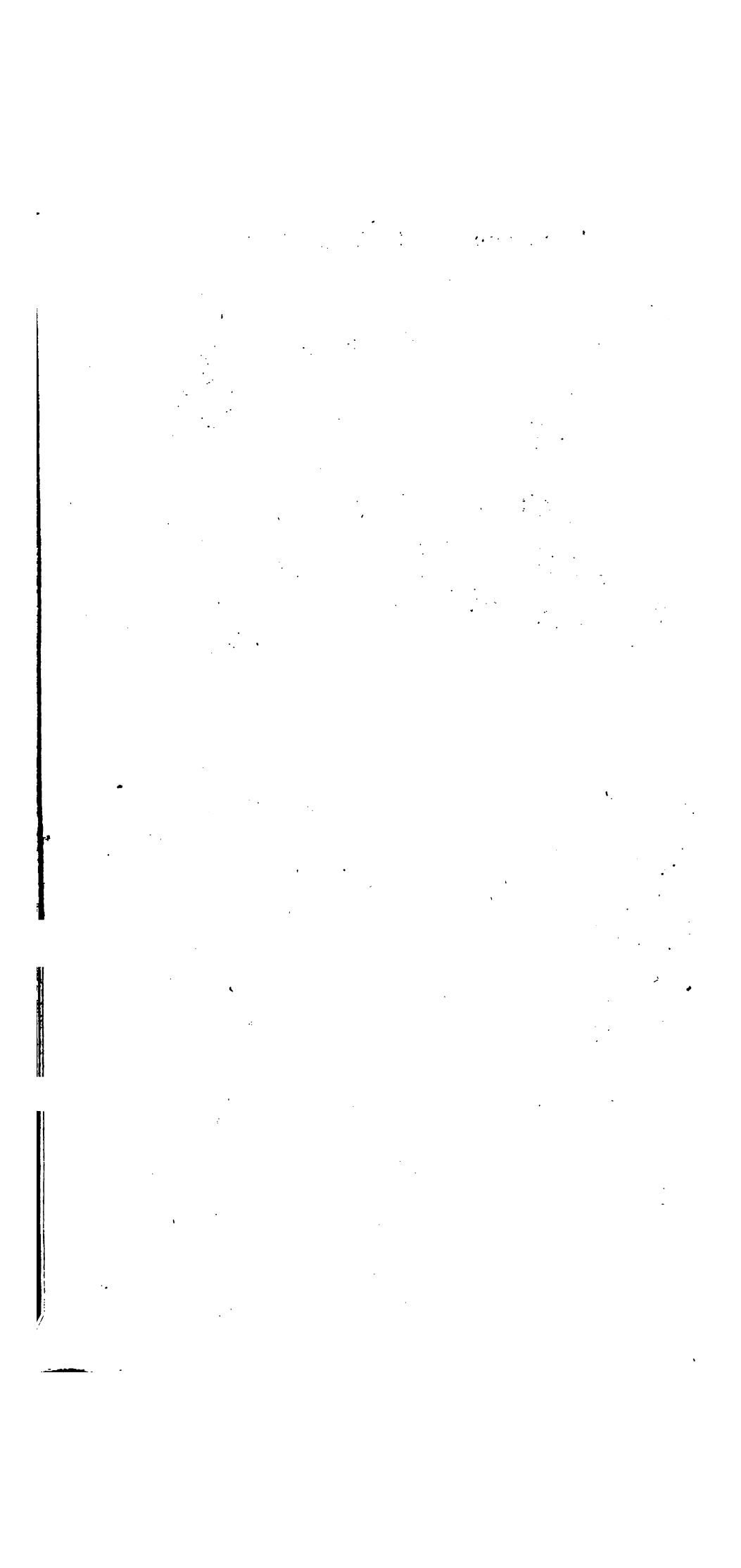


Mazel sculp.



EX. UPRIGHT SEA-LYME-GRASS.





EX. ANNUAL MEADOW-GRASS.

A. Outing (*Poa Annua.*)



I. Calyx



II. Corolla



III. Stamina



IV. Pistillum



V. Pericarp

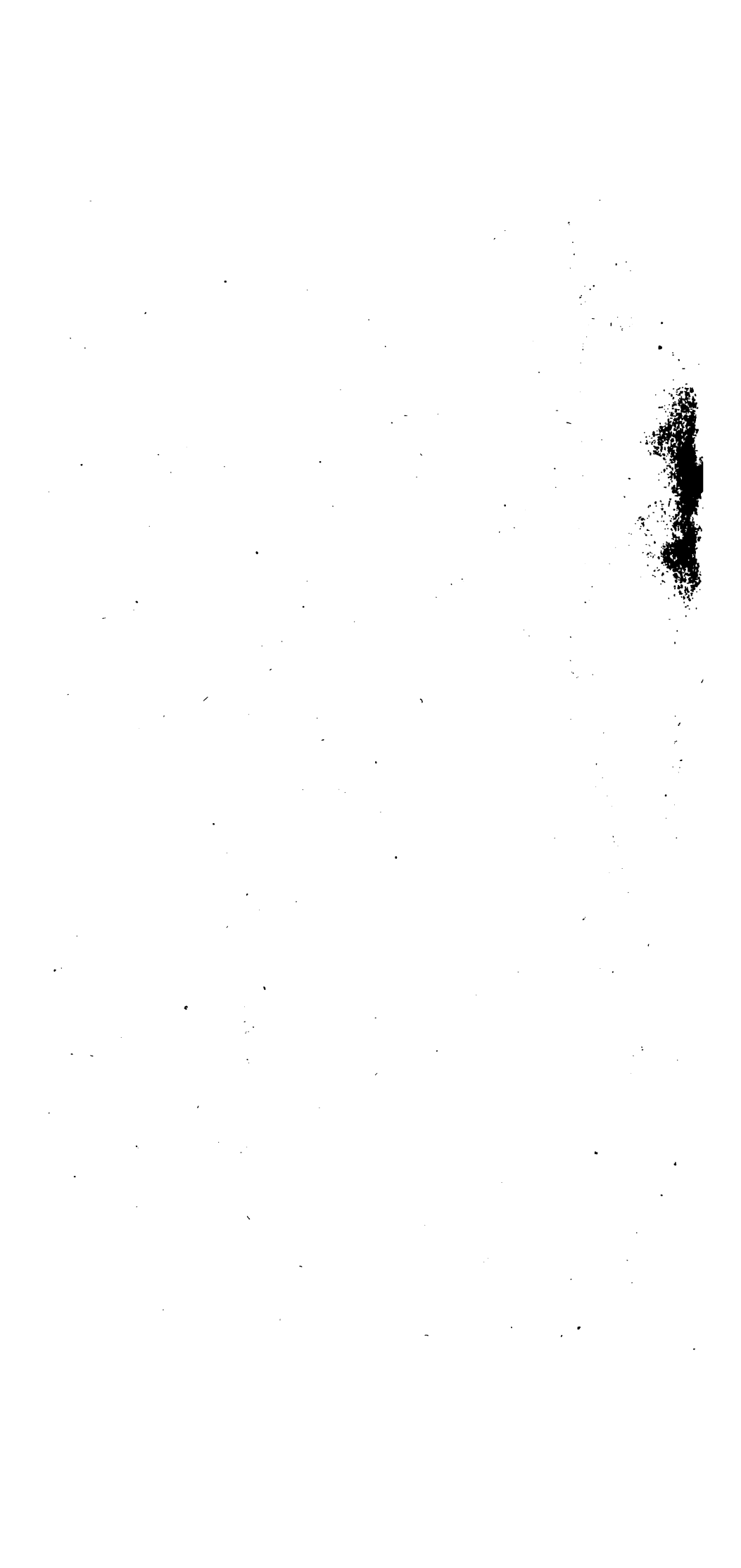


VI. Seed



r del^t

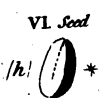
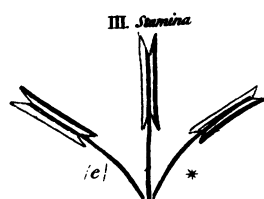
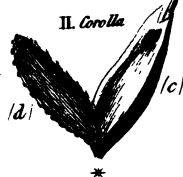
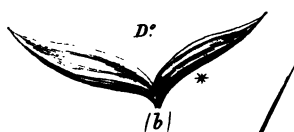
Mazel sculp^t



EX. *SOFT BROME-GRASS.*

(*Bromus Mollis.*)

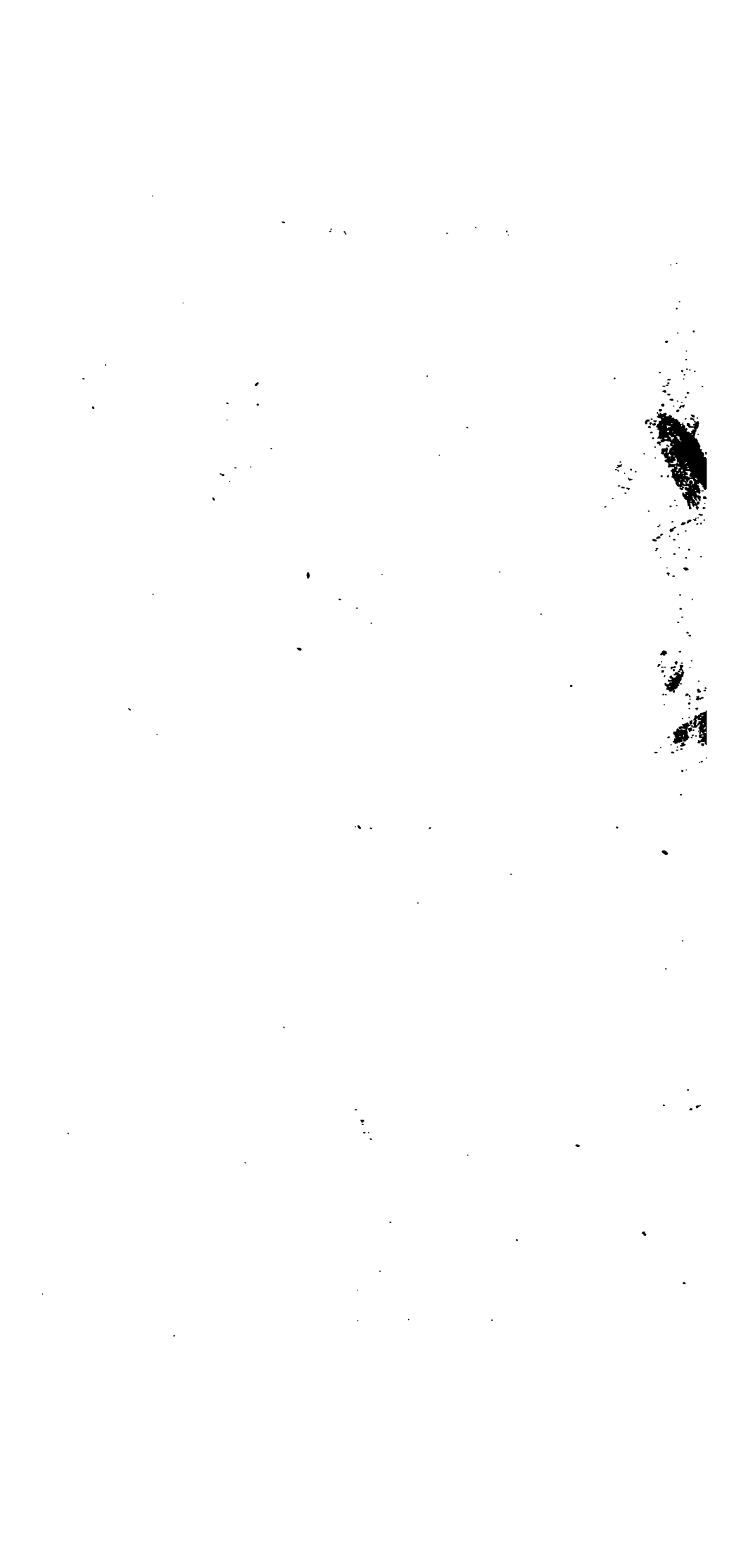
A Cutting



Miller del.

Mazel sculp.

London, Published by D. Thomson, Jan^r 1812.



EX. ANNUAL MEADOW-GRASS.

A Cutting (Poa Annua.)



I. Calyx



D°



II. Corolla



III. Stamina



IV. Pistillum



V. Pericarp



VI. Seed



er del^s

Mazel stulp^s

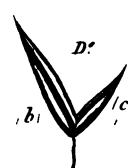


EX. COMMON REED.

(*Ariundo Phragmites.*)

A. Canina

I. Calyx



II. Corolla



III. Stamina



IV. Pistillum



V. Pericarp



VI. Seed



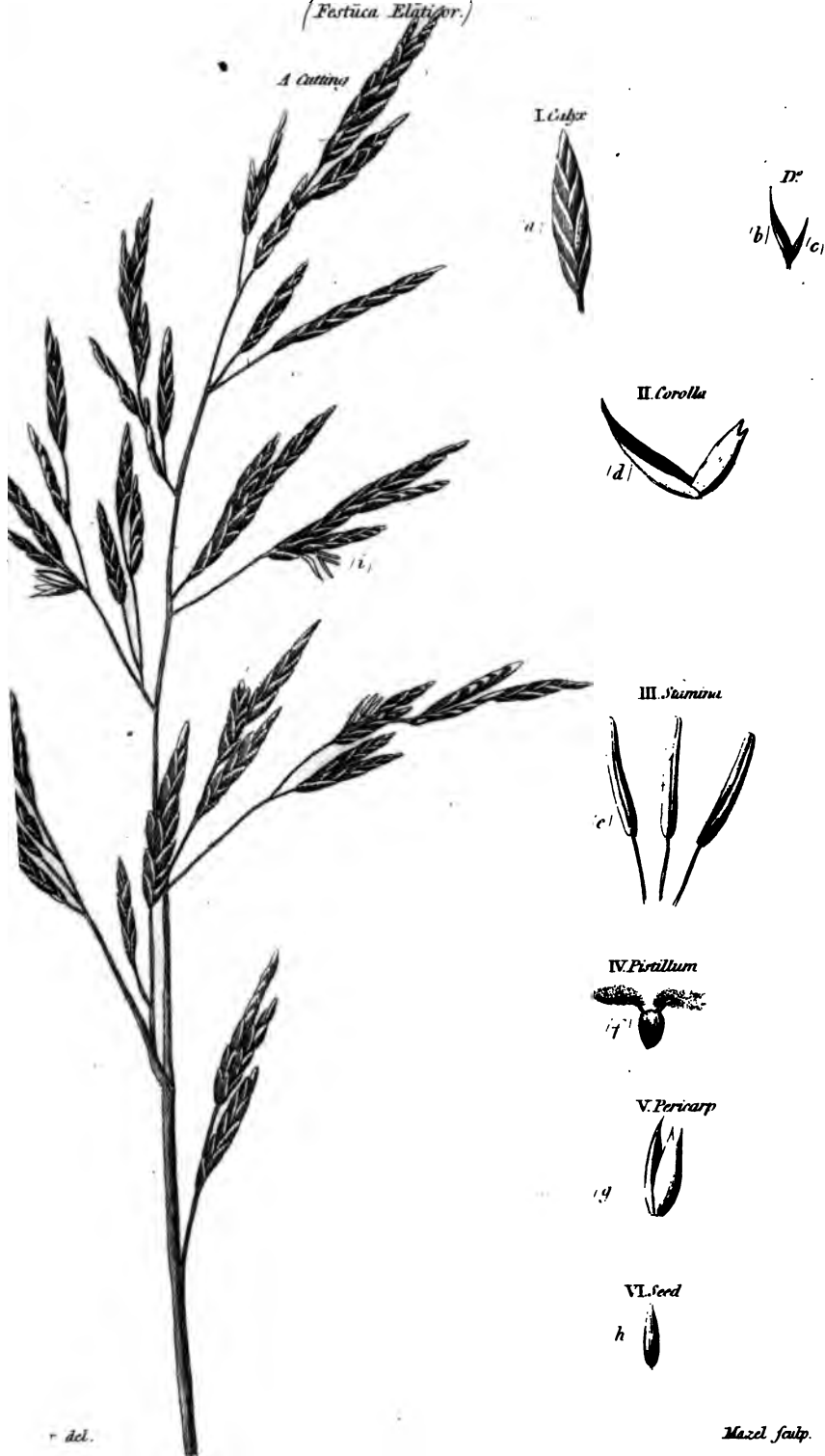
Miller del.

Mazel sculp.

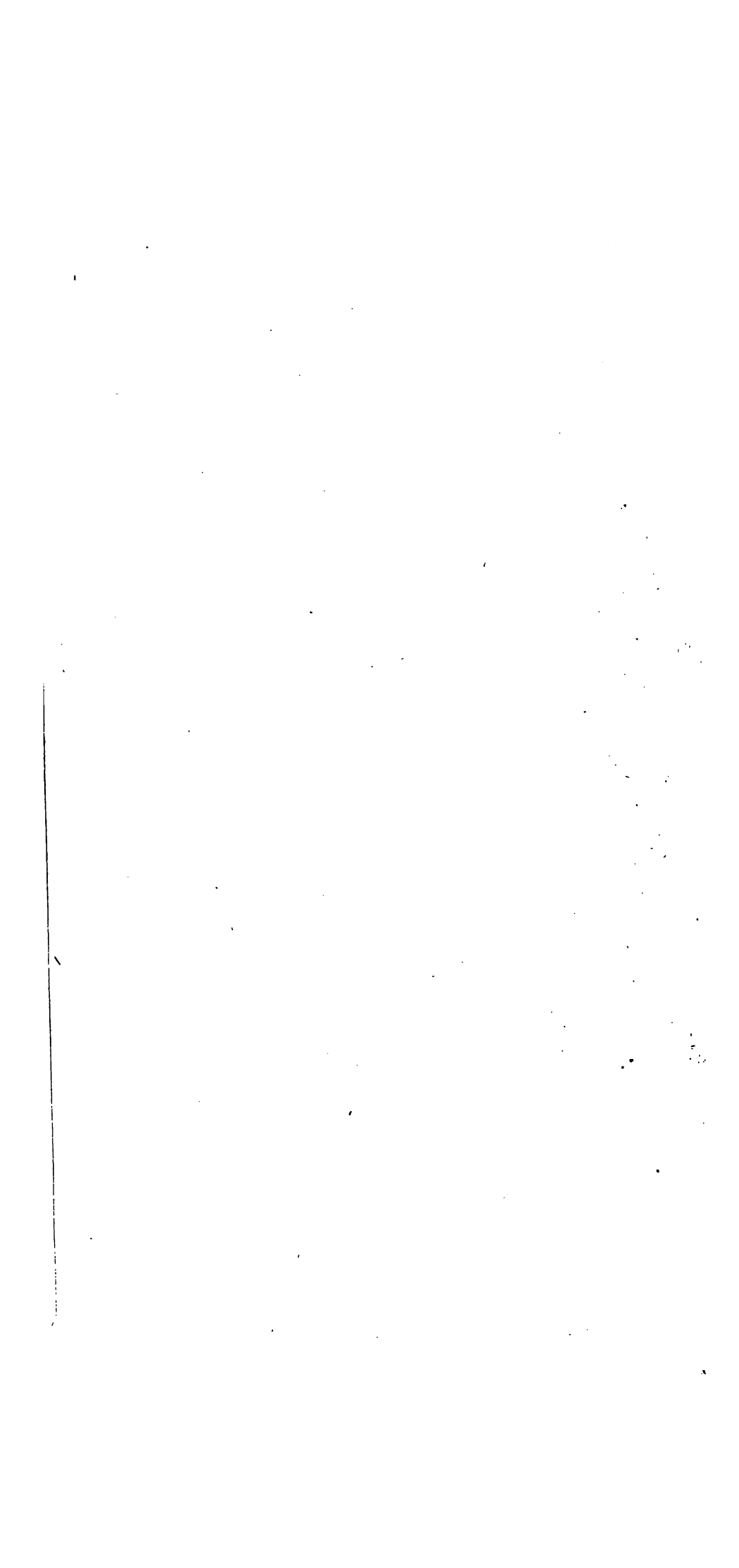
London, Published by D. Thornton, Janr 1782.



EX. TALL FESCUE--GRASS.
(Festuca Elatior.)



London, Published by D. Thornton, Jan 1842.



EX. PERENNIAL DARNEL.
(Lolium Perenne.)

A Cutting



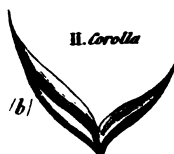
I. Calyx



D.



II. Corolla



III. Stamens



IV. Pistillum



V. Pericarp



VI. Seed



Mixed sculp.

Miller del.

mus 52. Rotibollia,

supposed to be Agilops

-66 Vide page 75.

London, Published by D. Thornton, Jan 1, 1822.

一、

二、

三、

四、

EX. TALL FESCUE--GRASS.
(*Festuca Elatior.*)



A Culm

I. Calyx



II. Corolla



III. Stamens



IV. Pistillum



V. Pericarp



VI. Seed



Miller del.

Mazel sculp.

London, Published by D. Thornton, Jan^y 1812.



EX. PERENNIAL DARNEL.
(Lolium Perenne.)

A Cutting



I. Calyx



D.



II. Corolla



III. Stamina



IV. Pistillum



V. Pericarp



VI. Seed

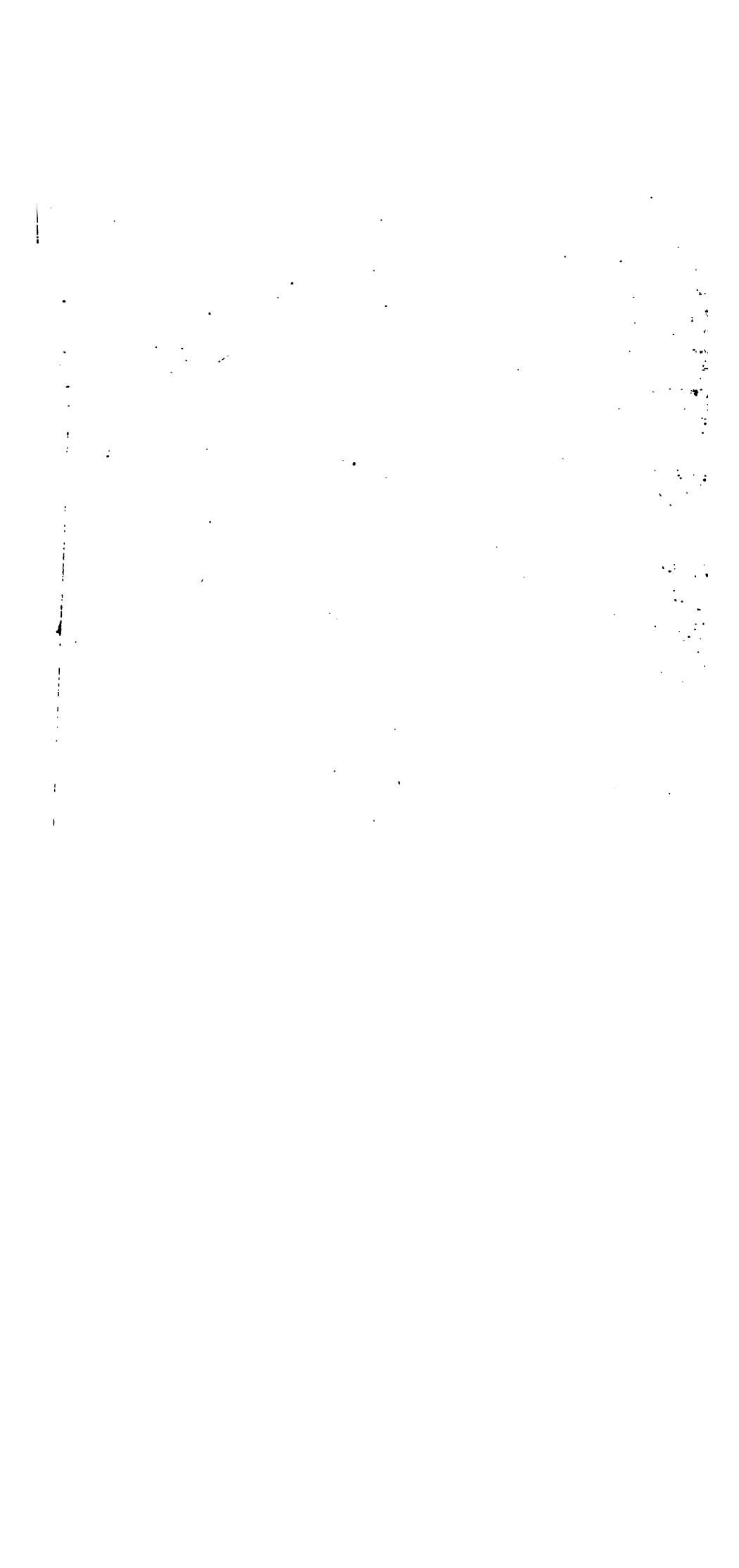


Mixed sculp.

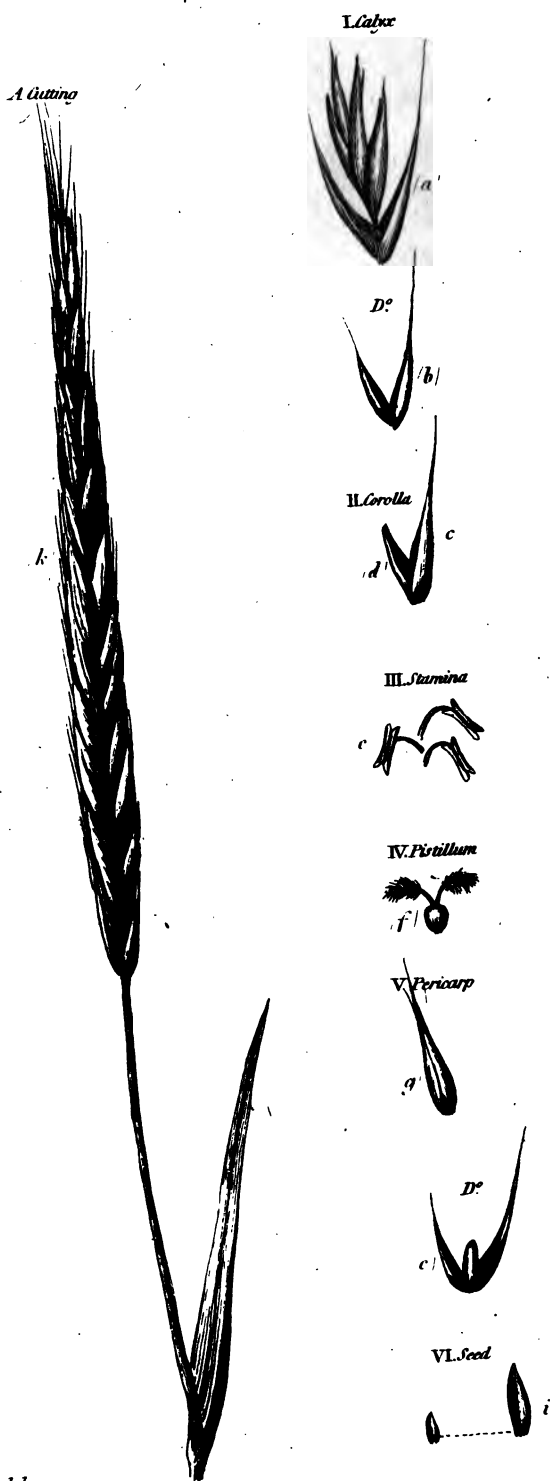
Viller del.

crus 52. Rottbolla,
supposed to be Egilops
en. 66 Vide page 75.

London, Published by D. Thornton, Jan' 1. 1822.



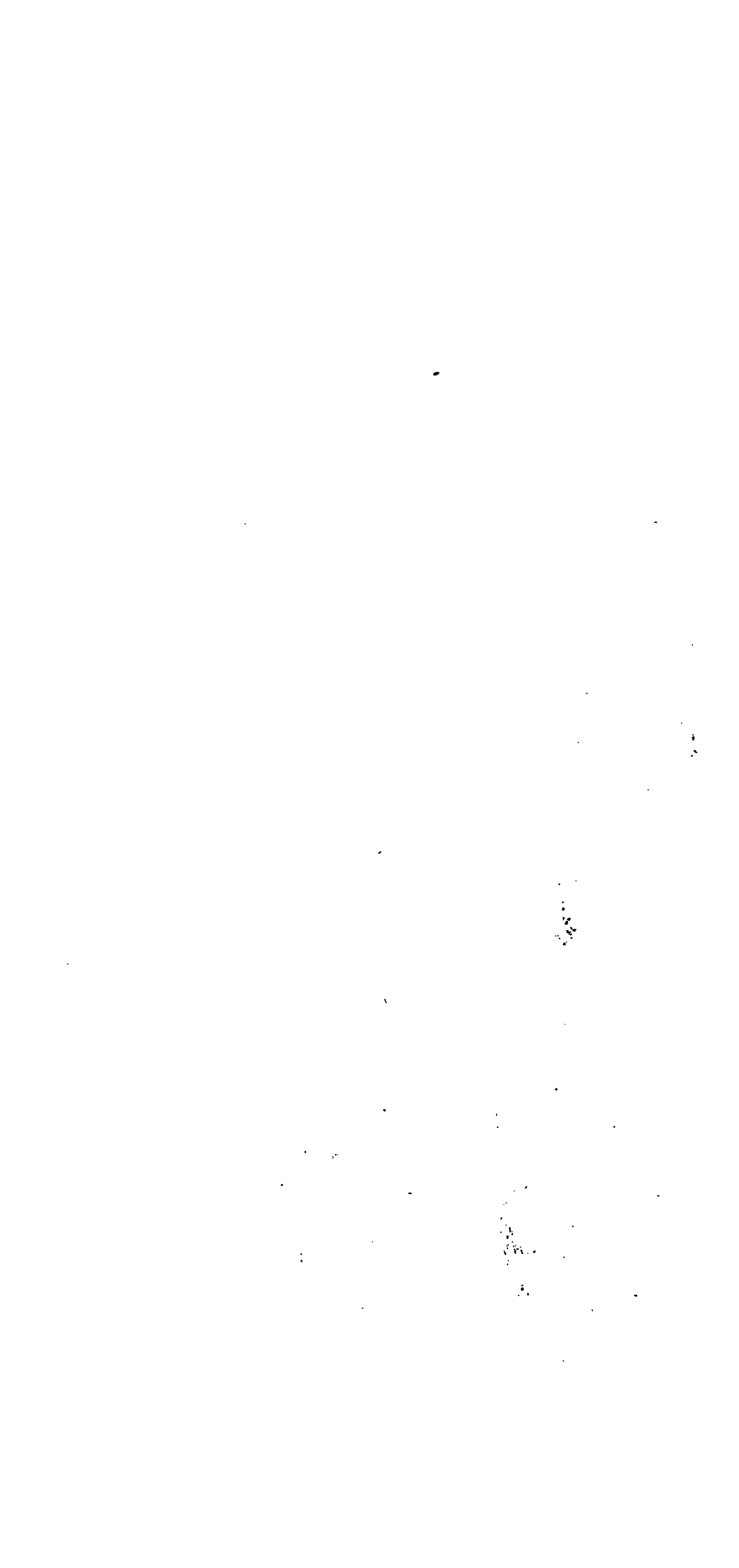
EX. BEARDED WHEAT-GRASS.
(*Triticum Carinatum*.)



Willer del.

Mazel sculp.

London, Published by D^r Thornton, Jan^r 1812.



EX. WATER CHICKWEED.

(*Montia Fontana.*)



A Flower



I. Calyx

a.



II. Corolla



b.

III. Stamina



IV. Pistillum

d.



V. Pericarp



e.

f.

VI. Seeds



g.

Mazel sculp.

EX. BEARDED WHEAT-GRASS.
(*Triticum Carinatum*.)

A Cutting

k

I. Labex



D°



II. Corolla



III. Stamina



IV. Pistillum



V. Pericarp



D°



VI. Seed



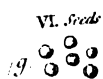
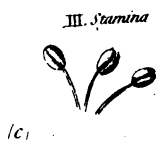
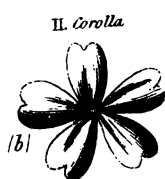
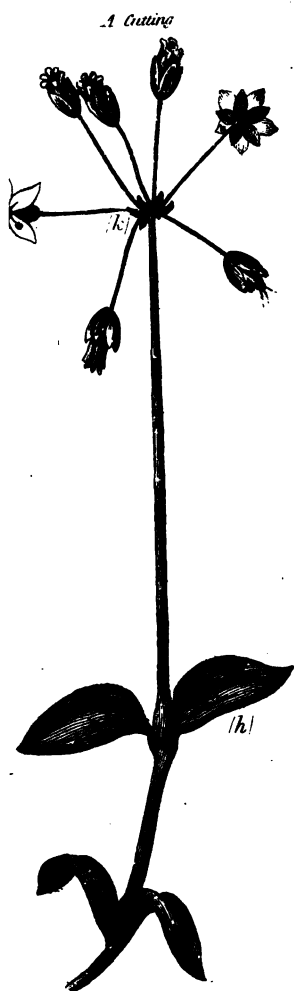
Mard

Miller del.

London, Published by D^r Thornton, Jan^r 1812.



EX. UMBELLIFEROUS MOUSE-EAR.
(*Holosteum Umbellatum.*)

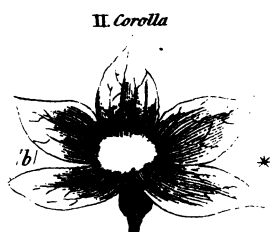
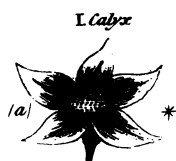


Miller del:

London. Published by D^rThornton Jan² 1812.

Mazel sculp

EX. WHITE BRYONY.



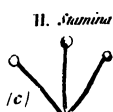
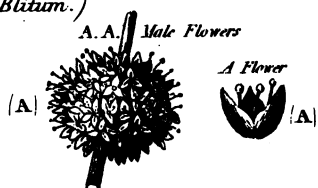
Miller del.

Mazel sculp.

London, Published by D. Thornton, Jan^r 1. 1812.



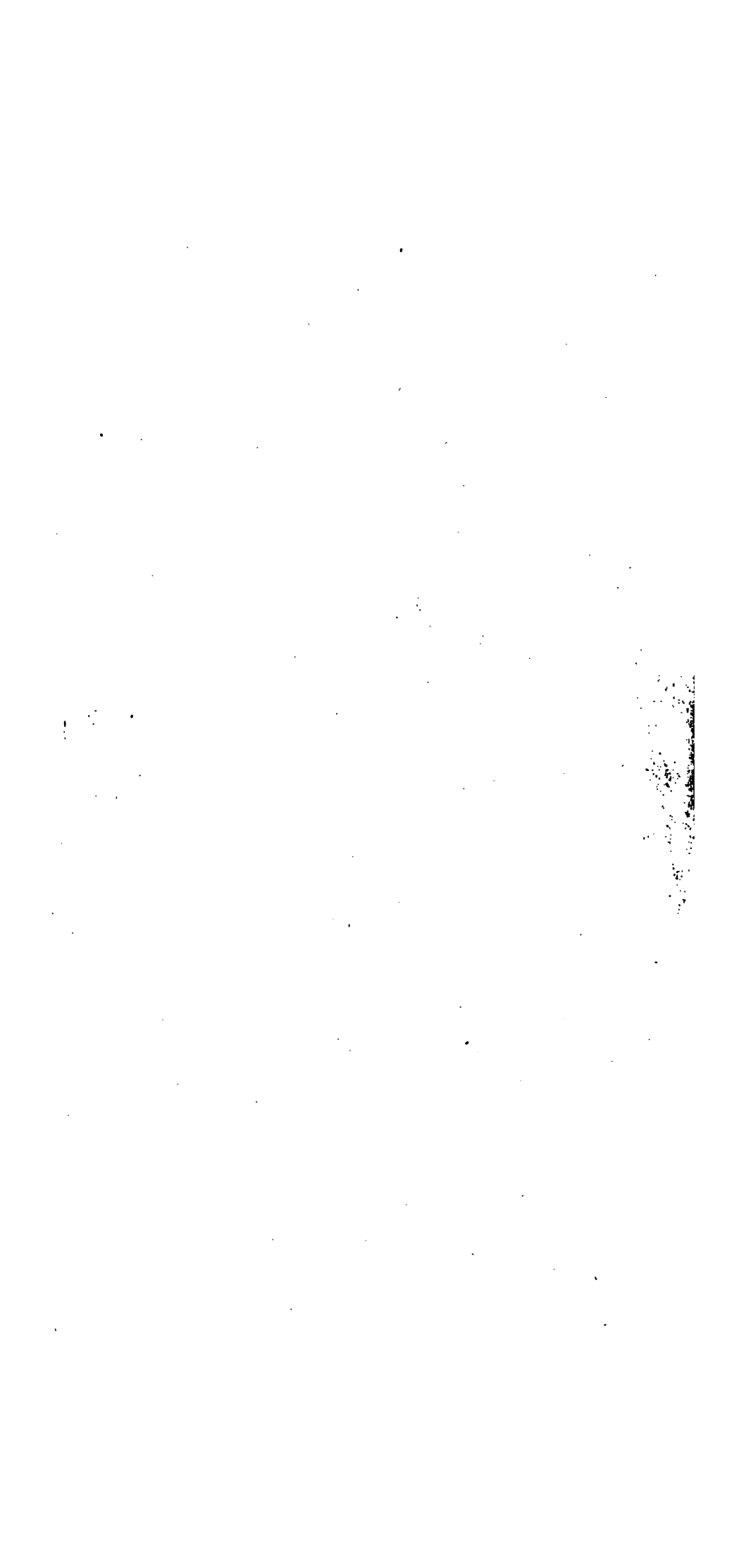
EX. *WILD AMARANTH.*
(Amaranthus Blitum.)



Miller del.

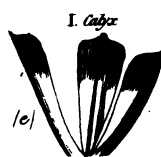
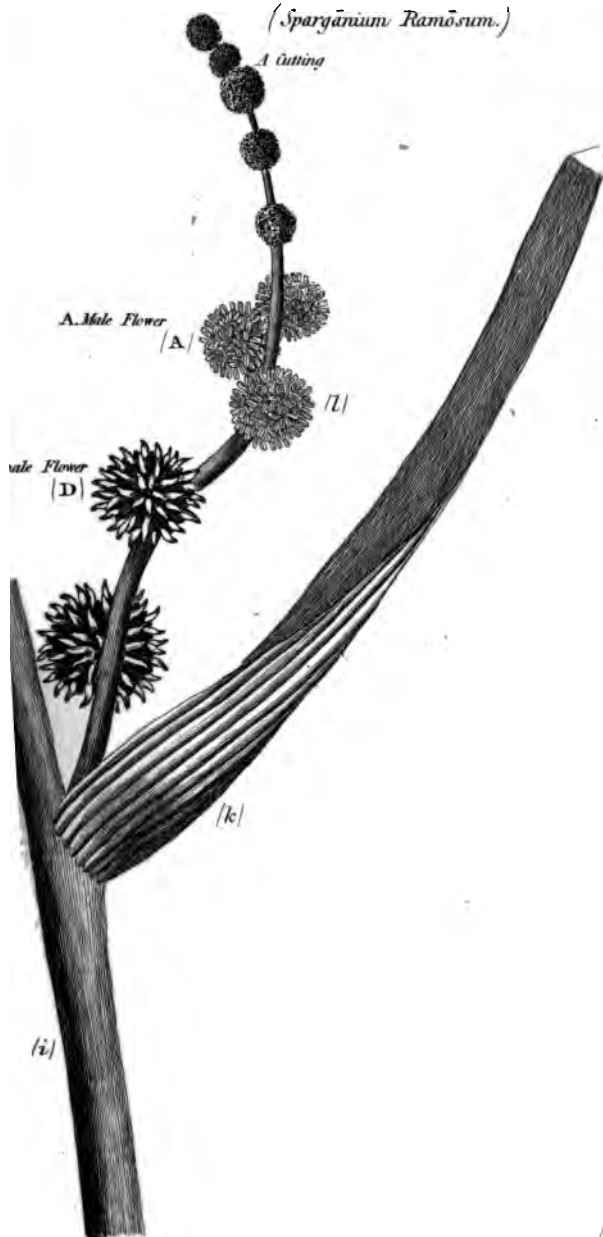
Muszel sculp.

London, Published by D. Thornton, Jan^y 1782.



EX. BRANCHED BUR-REED.

(*Sparganium Ramosum.*)



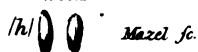
III. Pistillum



V. Pericarp



V. Seed

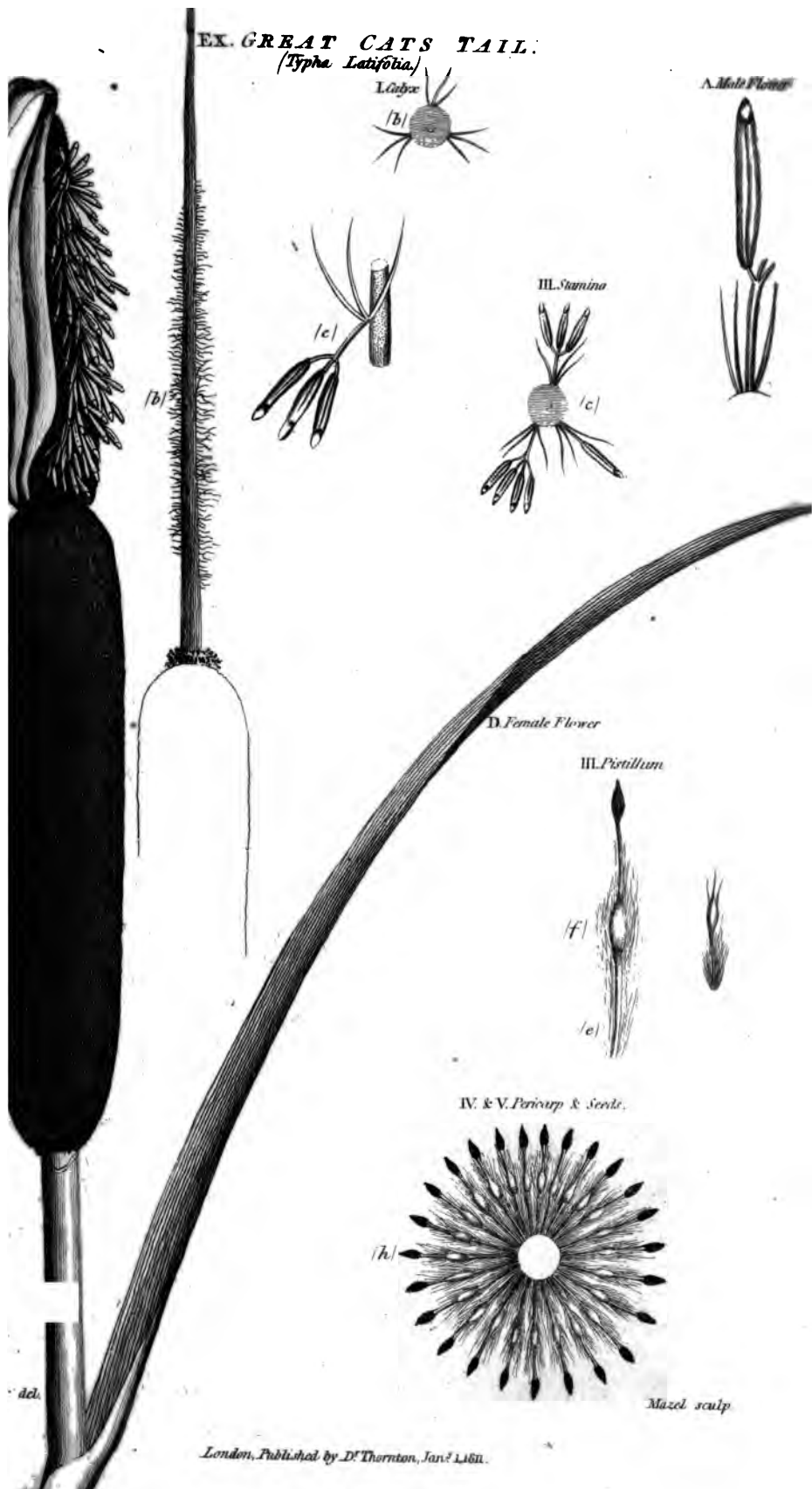


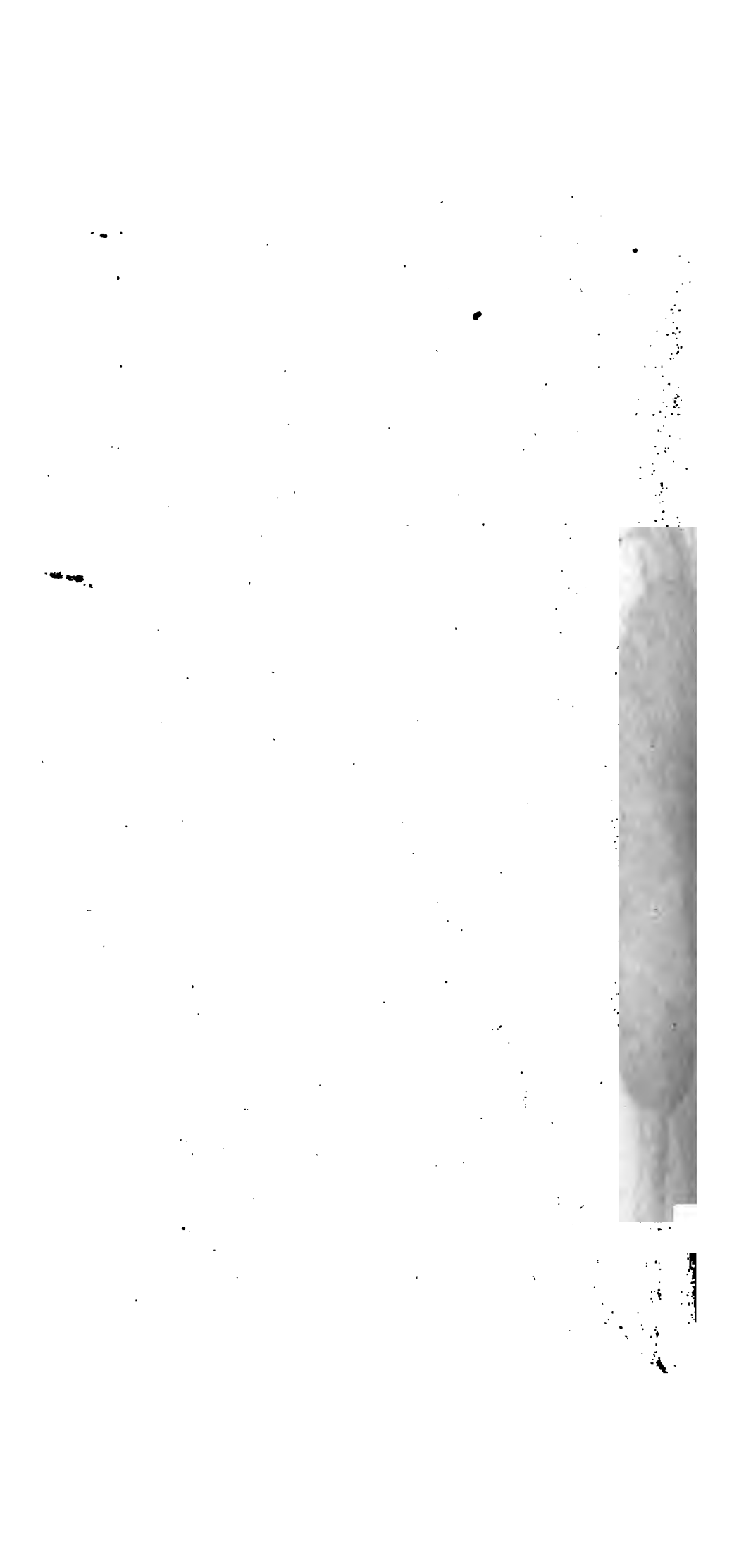
del.

London, Published by D. Thornton, Jan'y 1, 1812.



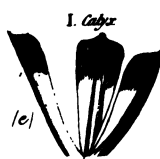
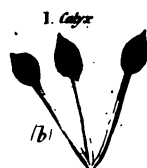
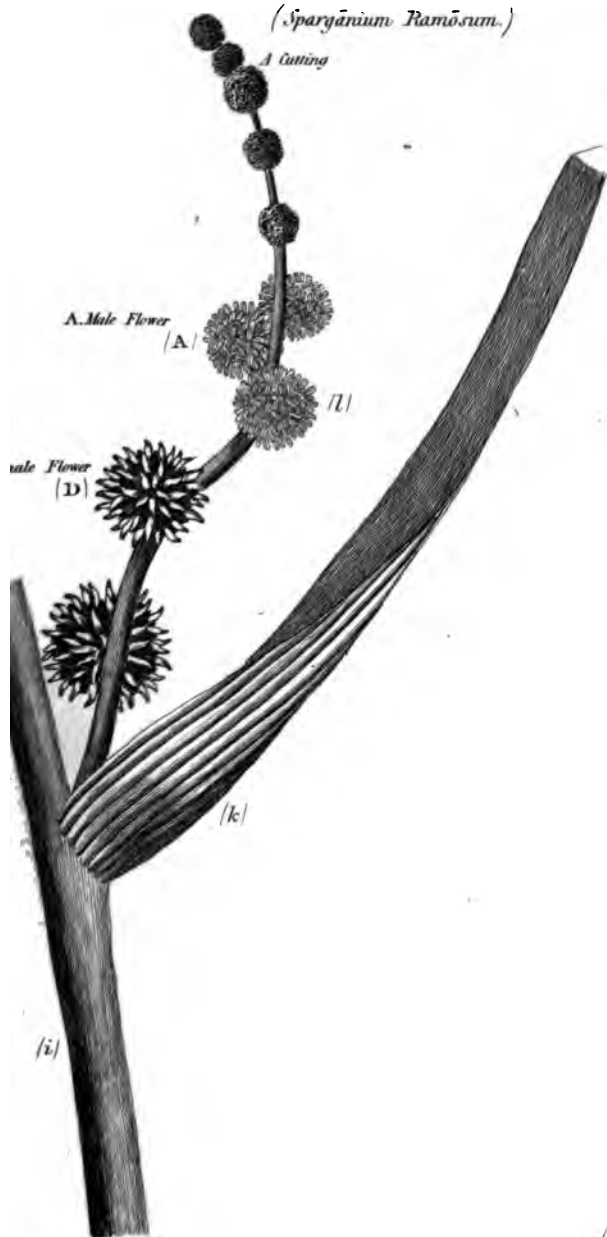
EX. GREAT CATS TAIL.
(*Typha Latifolia*.)





EX. BRANCHED BUR-REED.

(*Sparagānium Ramōsum.*)



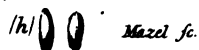
III. Pistillum



V. Pericarp



V. Seed



Her del.

London, Published by D. Thornton, Jan. 1, 1812.



EX. GREAT CATS TAIL.

(*Typha Latifolia*.)

Labre

[b]

A. Male Flower



[b]



[c]

III. Stamina



[c]



D. Female Flower

III. Pistillum

[f]

[e]

IV. & V. Pericarp & Seeds.

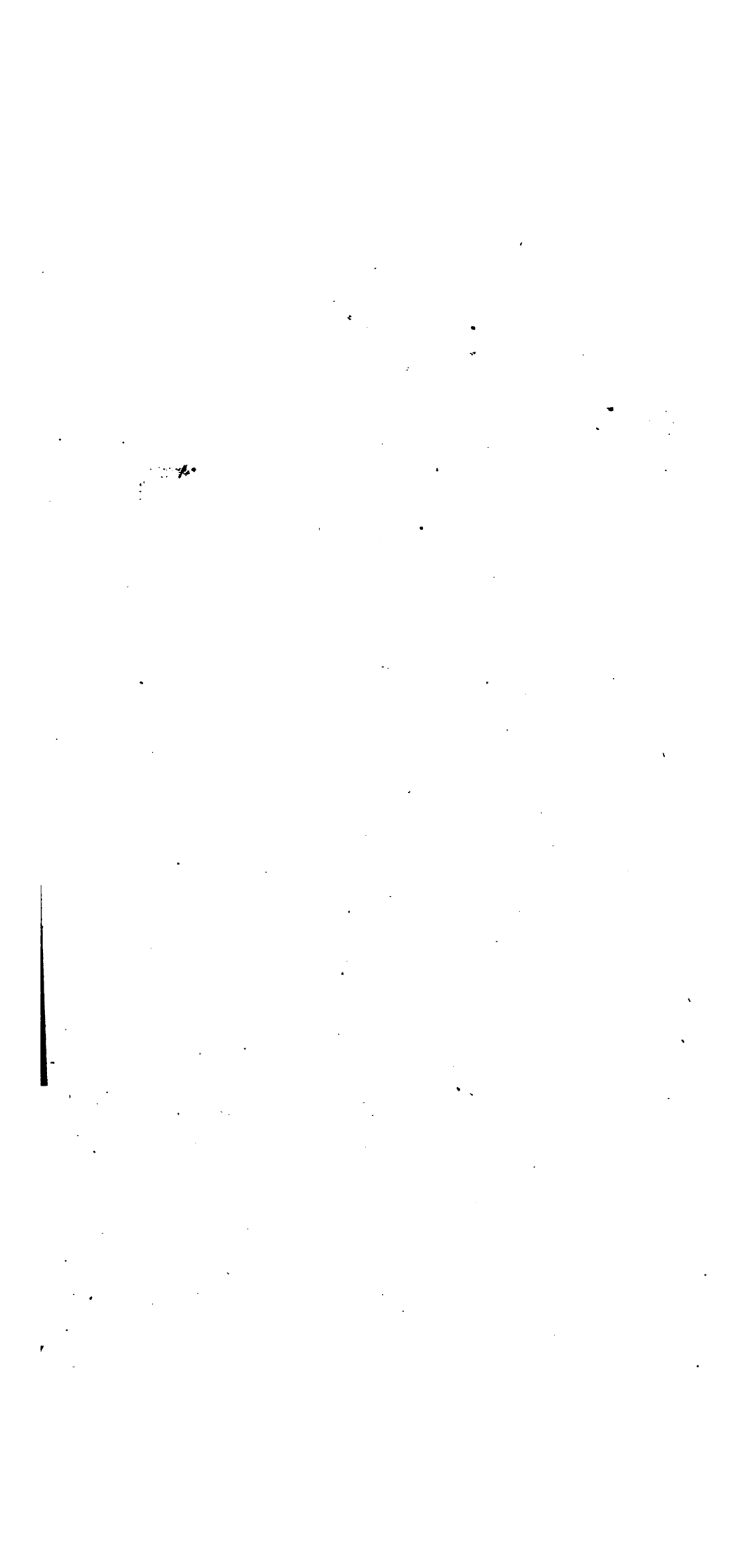
[h]



Mazel sculp.

Miller del.

London, Published by D^r Thornton, Jan^r 1762.

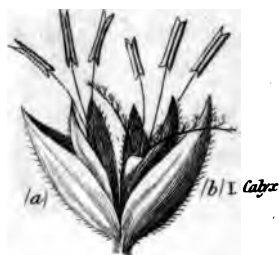


EX: WOOLLY SOFT GRASS.

A Cutting (*Holcus Lanatus.*)



A Bisexual Flower

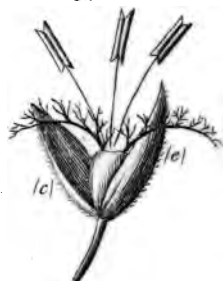


III. Stamina



II. Corolla

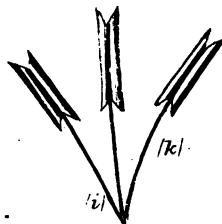
IV. Pistillum



I. Calyx

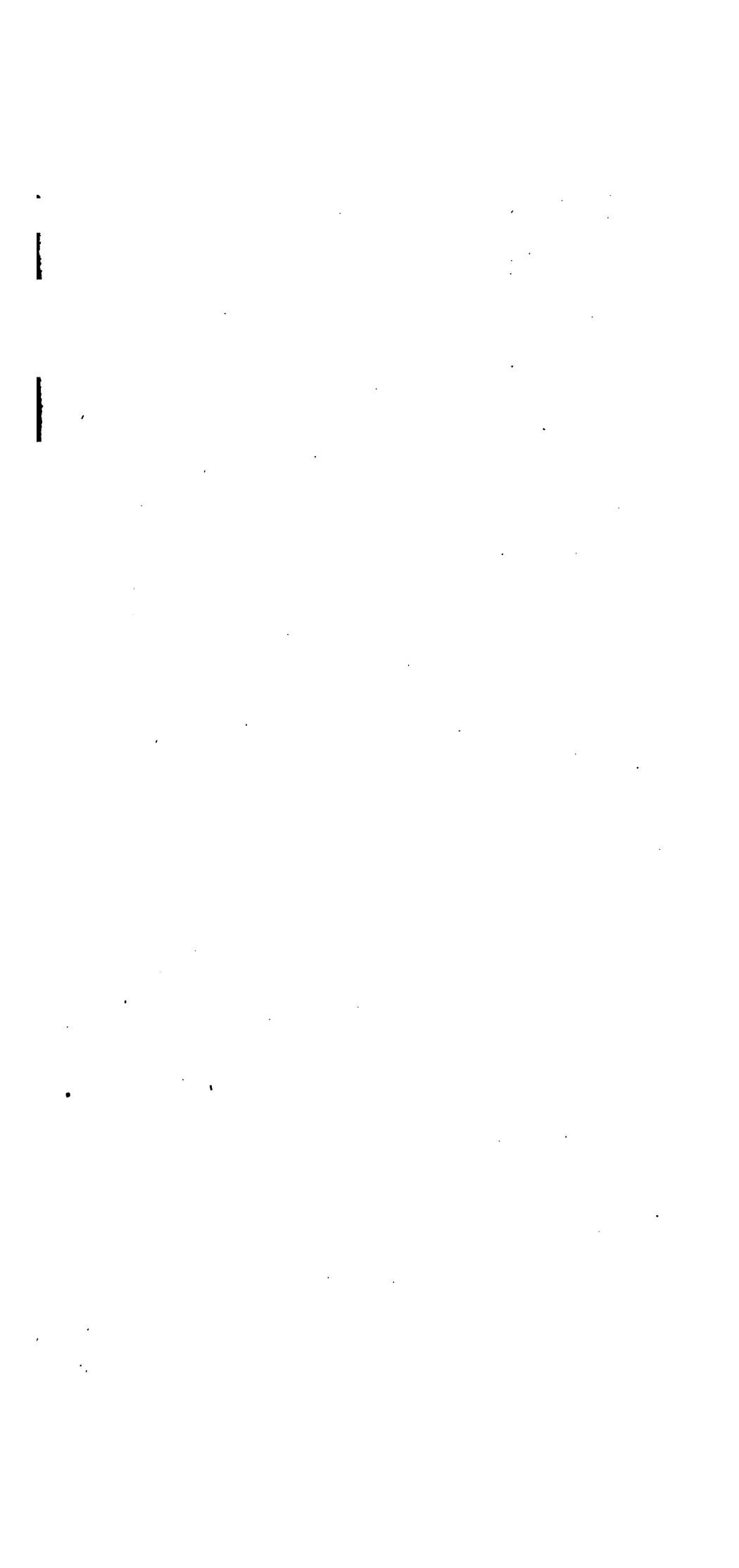


III. Stamina



Mazel sculp.

London, Published by D. Thornton, Jan^y 1 1812.



EX. SEA HARD-GRASS.

(*Egilops Incurvata*.)

Flowers.

Atutting

A. Bisexual

B. Male

C. Female

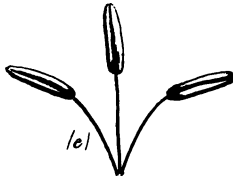


Glabyr

b1



III. Stamina



IV. Pistillum

f1



V. Pericarp

g1



VI. Seed

h1



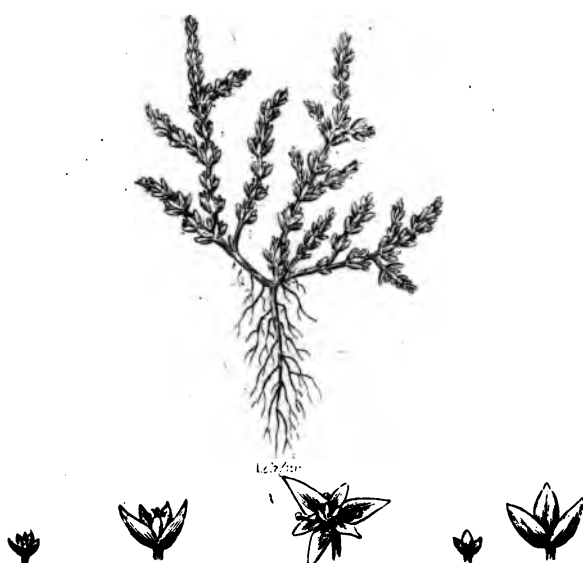
r del.

Mazel faulp.



MOSSY RED SHANKS

(*Talla Muscosa*.)



III. Corolla



III. Stamina.



IV. Pistilla.



V. Pericarp



VI. Seeds



del.

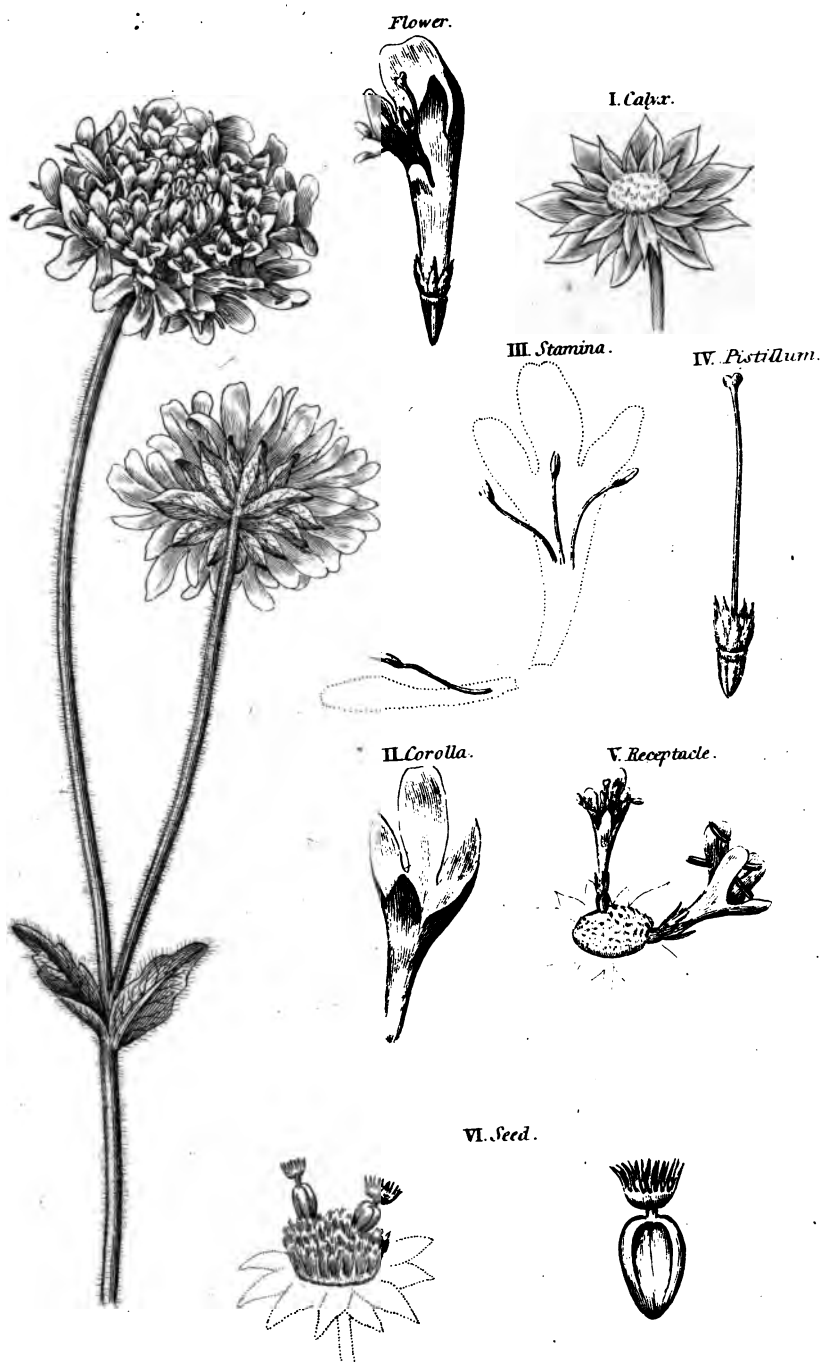
W. H. S. del.

London: Published by D. Thornton Jan. 1. 1872.



FIELD SCABIOUS.

(*Scabiosa Arvensis*.)



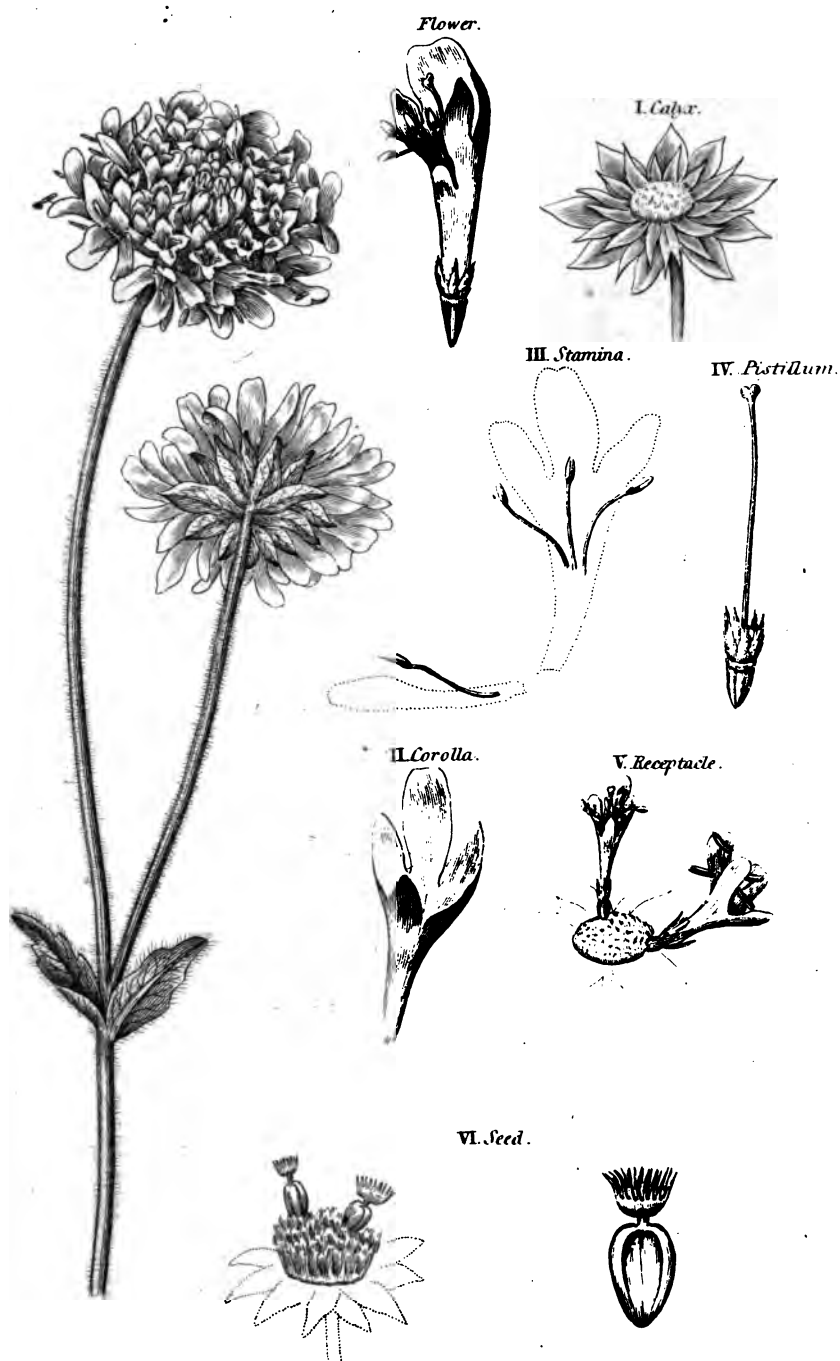
Warner sculp.

London, Published by D. Thornton, Jan'y 1. 1812.



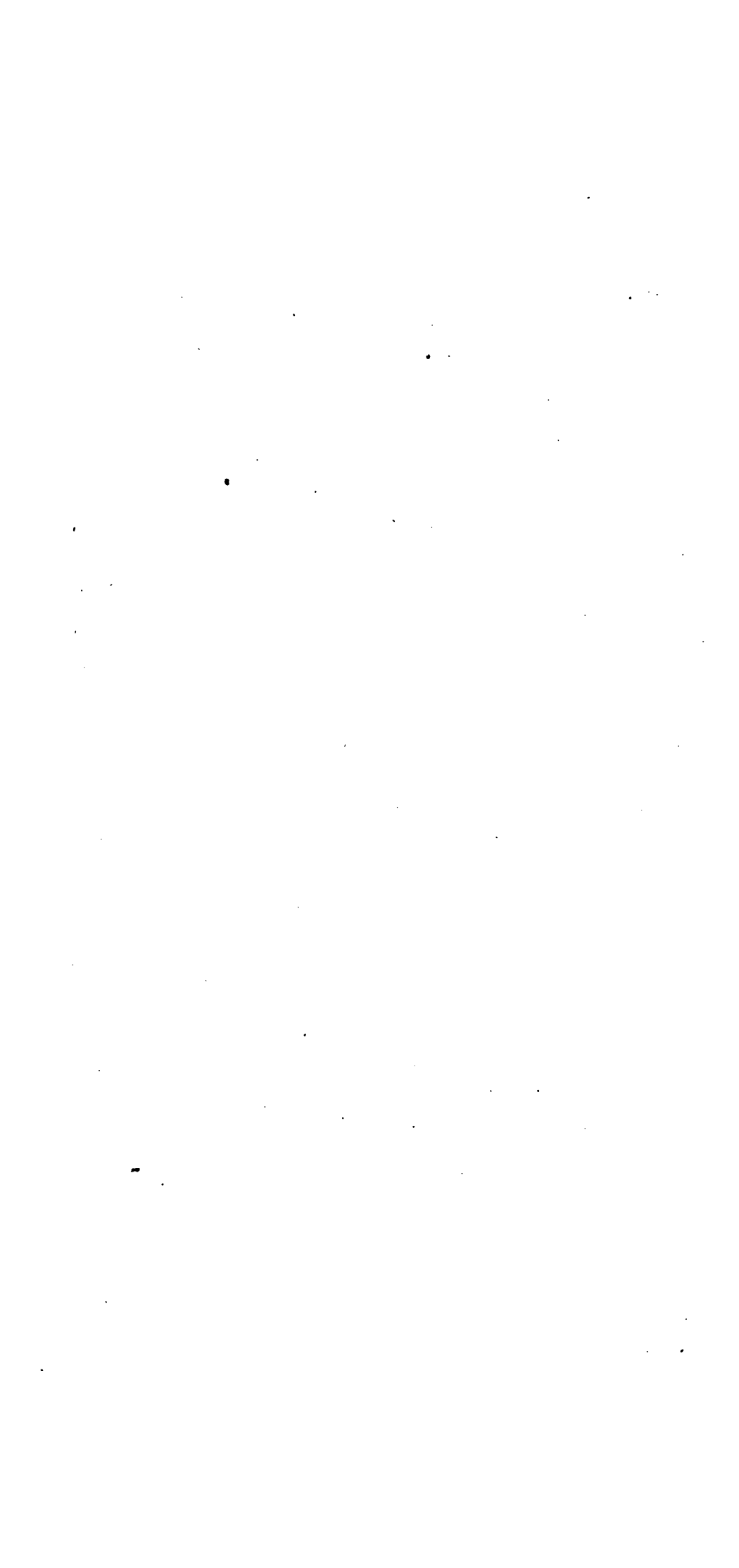
FIELD SCABIOUS.

(*Scabiosa Arvensis*.)



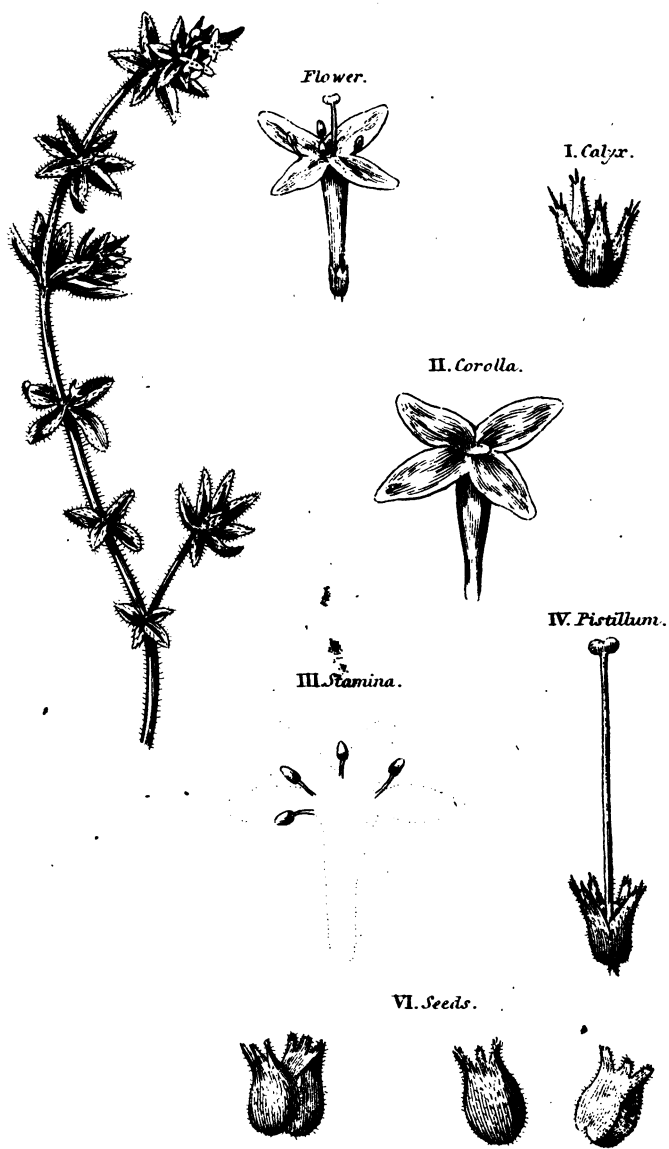
London, Published by D. Thornton, Jan. 1. 1812.

Warner, sculp.



LITTLE FIELD MADDER.

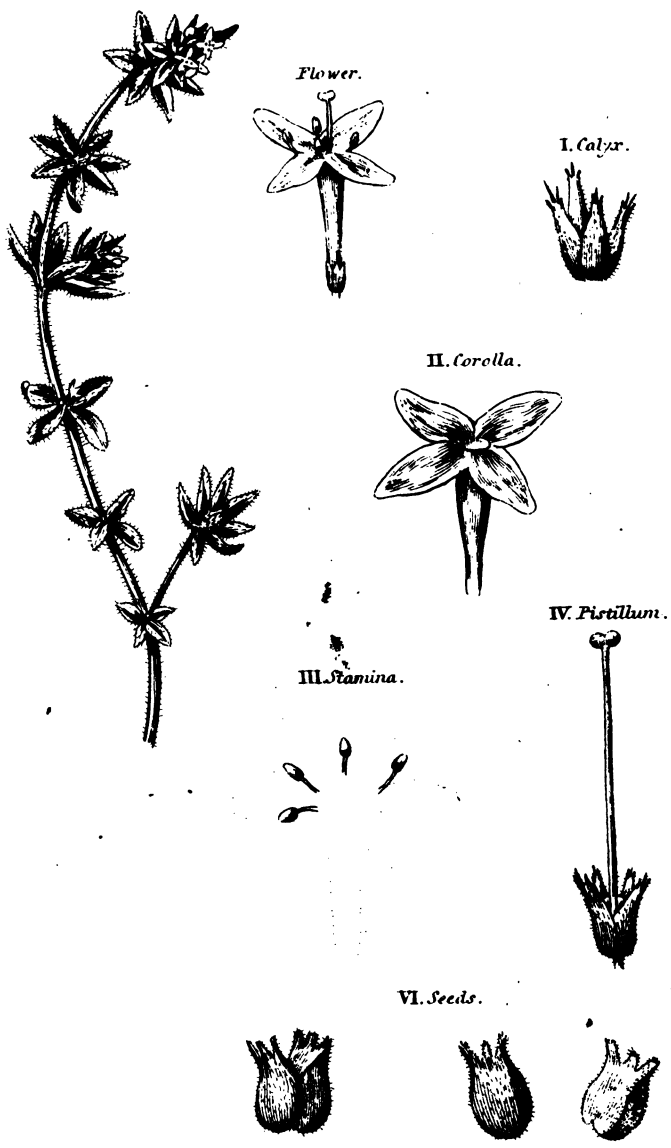
(*Sherardia arvensis.*.)





LITTLE FIELD MADDER.

(Sherardia arvensis.)





GREATER WATER PLANTAIN

(*Alisma Plantago*)



Flower



1. Calyx



II. Corolla



III. Stamina



IV. Pistillum



V. Pericarp.



VI. Seed



del.

Warner sculpt.

London Published by D. Thornton Jan^y 12. 1822.

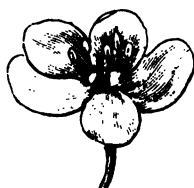


SCARLET & BLUE PIMPERNEL.

(Anagallis Arvensis.)



Flower.



I. Calyx.



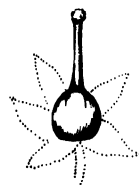
II. Corolla.



III. Stamina.



IV. Pistillum.



V. Pericarp.



VI. Seed.





SCARLET & BLUE PIMPERNEL.

(*Anagallis Arvensis*.)



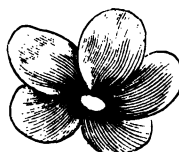
Flower.



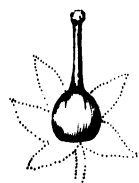
I. Calyx.



II. Corolla.



IV. Pistillum.



III. Stamina.



V. Pericarp.



VI. Seed.



London, Published by D. Thornton, Jan. 1. 1811.

Warner.



GREAT BURNET.

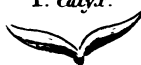
(*Sanguisorba officinalis.*)



Flower.



I. Calyx.



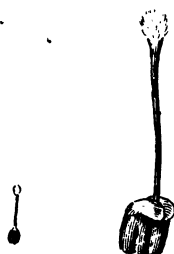
II. Corolla.



III. Stamina.



IV. Pistillum.



V. Pericarp.



VI. Seed.



141

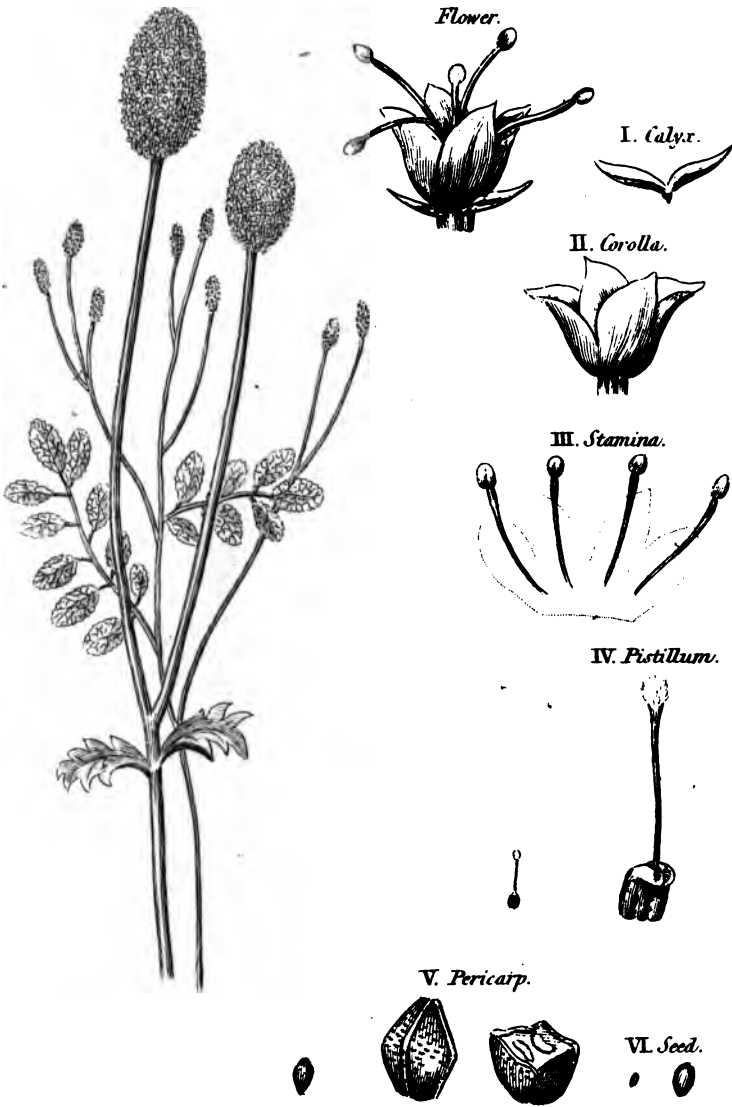
Warner sculp.

London, Published by D. Thornton, Jan. 1, 1812.



GREAT BURNET.

(*Sanguisorba officinalis*.)



del.

Warner sculp.

London, Published by D. Thornton, Jan. 21, 1812.



BOX TREE.

(*Buxus Sempervirens.*)



Flowers. clustered.



Male.

I. & II. Calyx. & Corolla.

Male Flower.



III. Stamina.



I. Calyx.



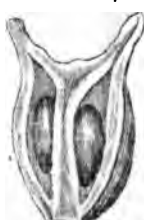
II. Corolla.



III. Pistilla.



IV. Pericarp.



V. Seed.





BOX TREE.
(Buxus Sempervirens.)



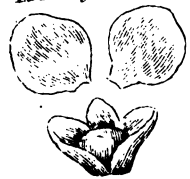
Flowers clustered.

Male.



Male Flower.

I. & II. Calyx & Corolla.



III. Stamina.



I. Calyx.



II. Corolla.



III. Pistilla.



IV. Pericarp.



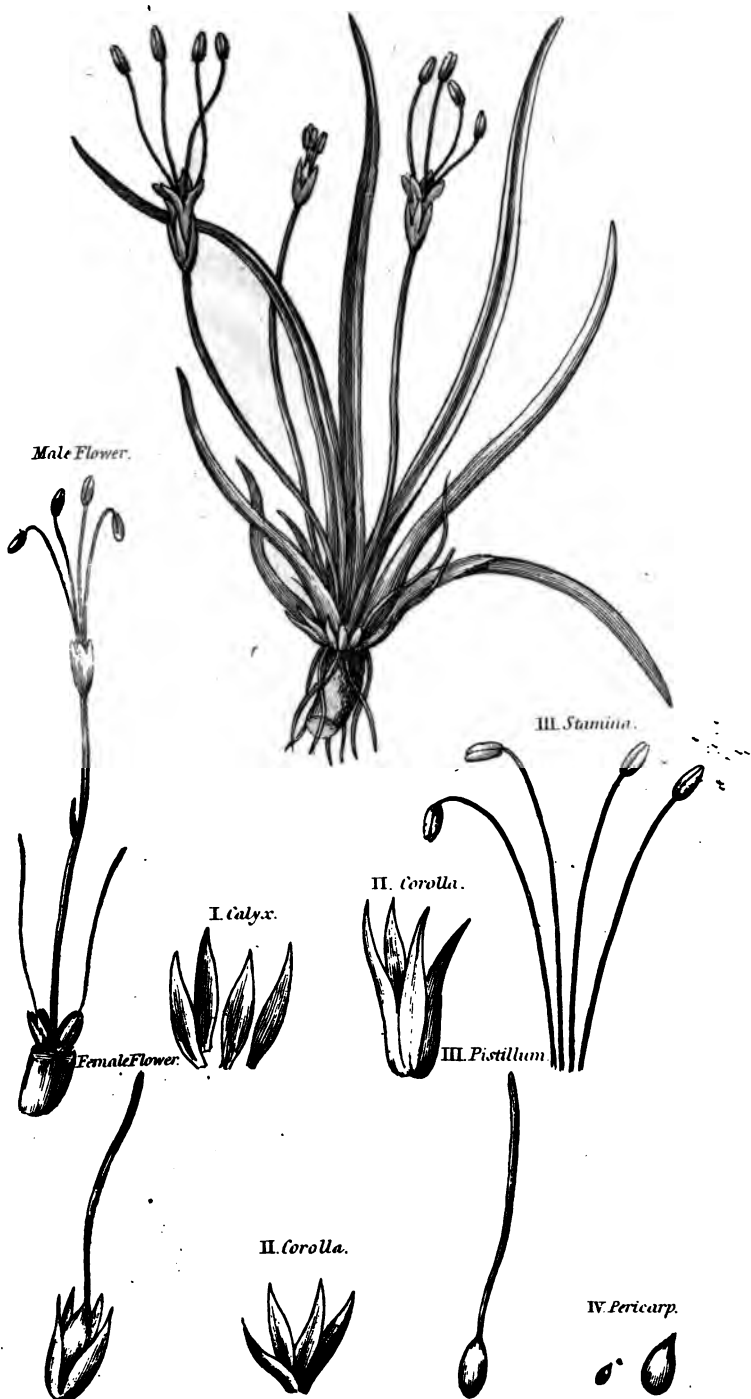
Seed.

Wear



PLANTAIN SHORE-WEED.

(Littorella Lacustris.)



r del.

Warner sculp.

London, Published by D^r Thornton, Jan^y 1. 1812.



GREAT NETTLE.

(*Urtica Dioica.*)



Male Flower.



I. Calyx.



III. Stamina.



II. Nectary.



Female Flower.



I. Calyx.



LD.^o



III. Pistillum.



V. Seed.



del.

Warner fecit

London, Published by D. Thornton, Jar 1212.



SEA BUCKTHORP.

(*Hippophae rhamnoides*.)



A Male flower.



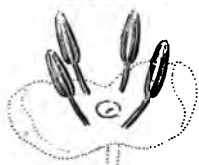
D° open.



I. Calyx.



II. Stamina.



A Stamen.



A Female flower.



I. Calyx

II. Pistillum.



III. Pericarp.



IV. Seed.



Giller del.

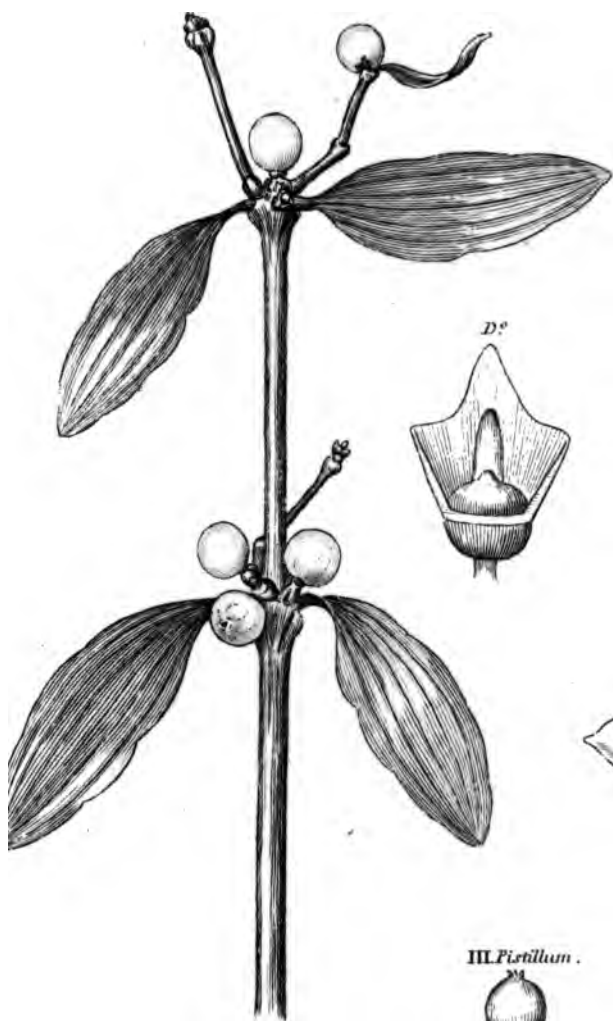
Warner sculp.

London, Published by D. Thornton, Jan^y 1. 1812.



WHITE MISSELT OE.

(*Viscum Album.*)



I. Calyx.



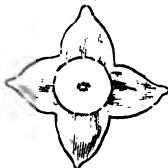
III. Stamina.



D?



I. Calyx.



IV. Pericarp.



III. Pistillum.



V. Seed.





PELLITORY OF THE WALL.

(*Parietaria officinalis.*)

A cutting.



Flowers.



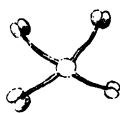
I. Calyx.



I. D°



III. Stamina.



IV. Pistillum.



VI. Seed.



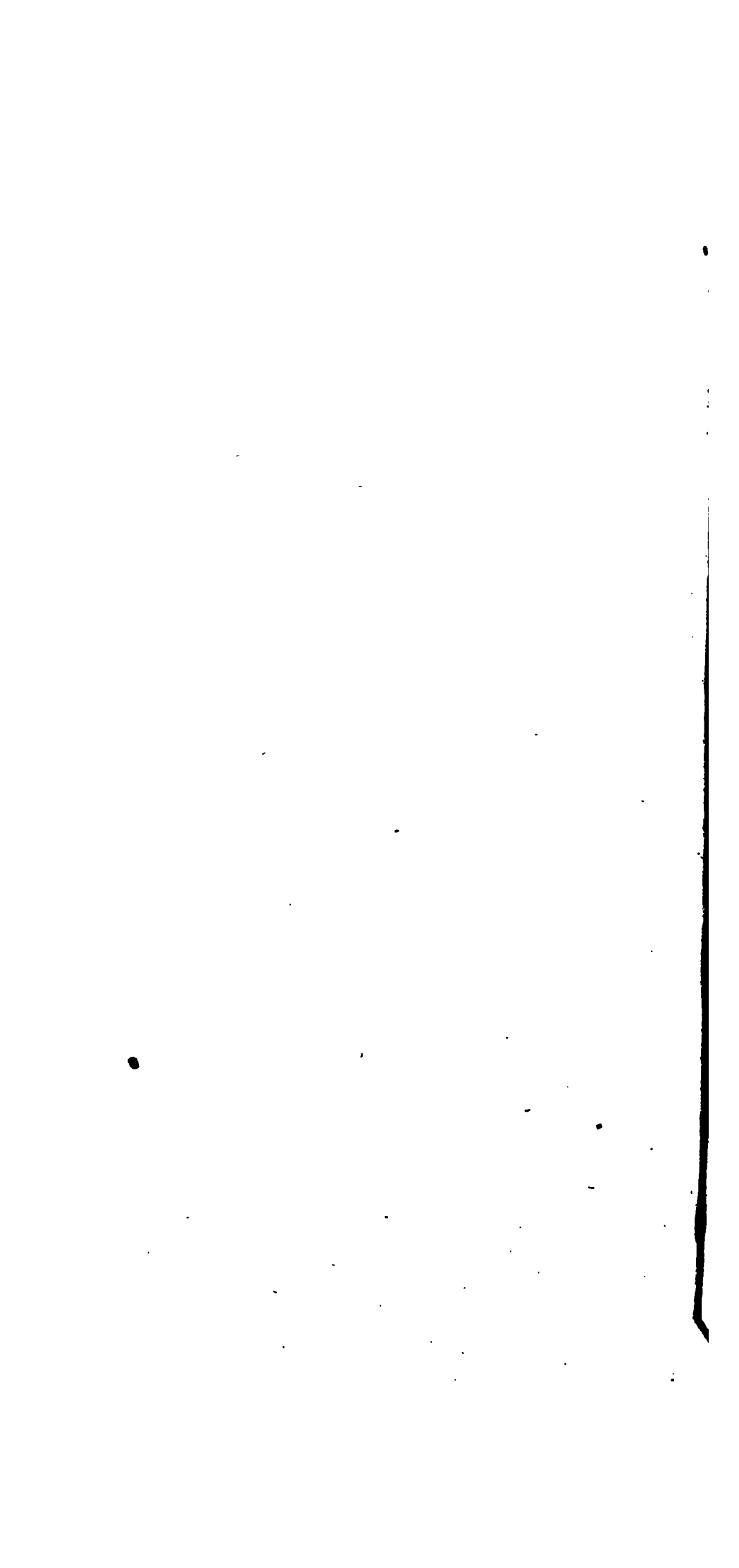
Warner sculp.

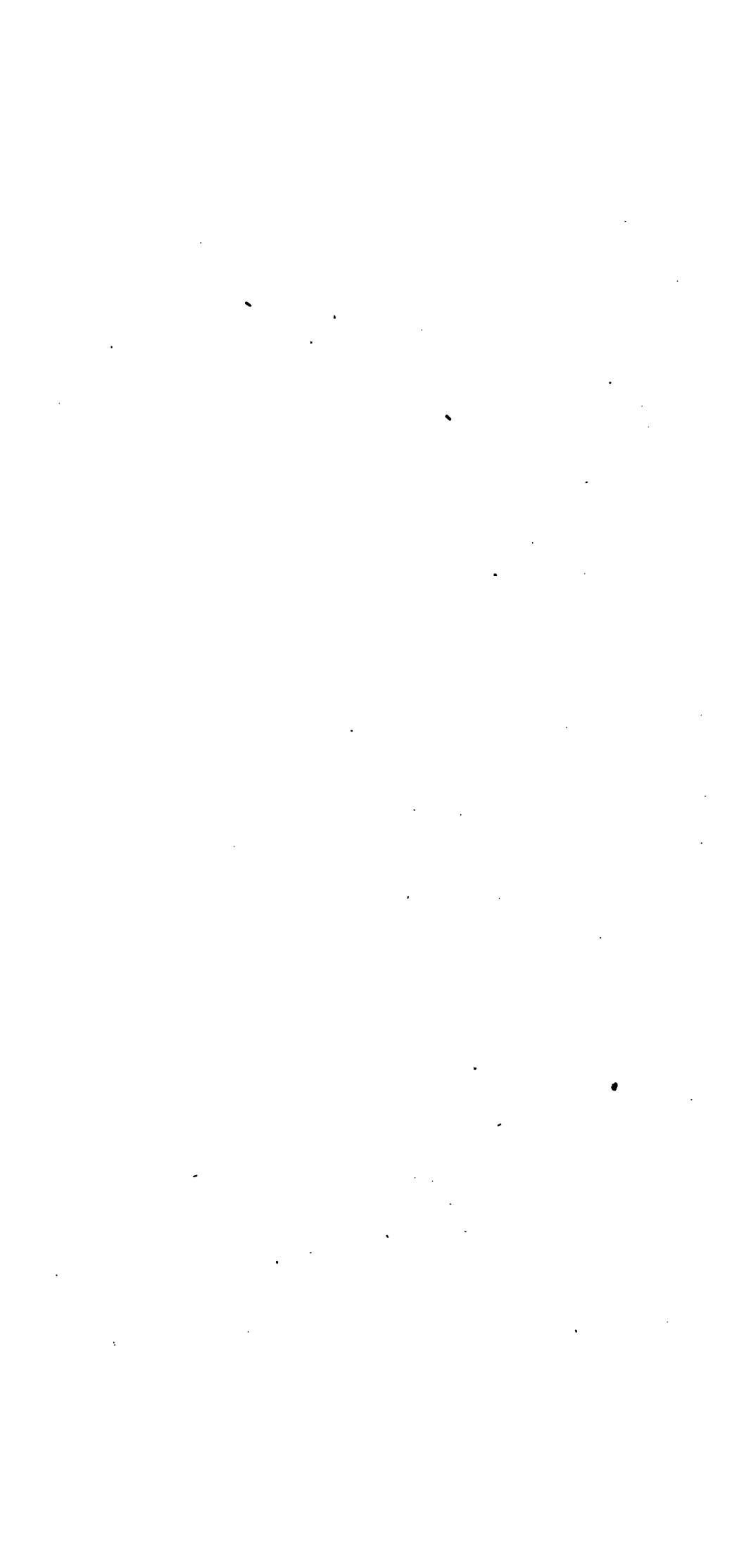
Miller del.

London, Published by D. Thornton, Jan^y 1. 1812.











JL

7-21-56

(17)

Wendell L. Lusk Aylerbury





